Oxford Medical Alumni Update

Oxford Medical Alumni (OMA) promotes good fellowship amongst Oxford Medical Sciences alumni, supports regular meetings in Oxford and elsewhere, for continued learning, exchange of ideas, networking and socialising.

REUNIONS

Decade reunions are planned for alumni every year. In 2022, reunions will be scheduled for alumni who qualified in 1972, 1982, 1992, 2002 and 2012, with catch-up reunions also planned for 1970 and 1971. Details will be sent by email and will be advertised here: www.medsci.ox.ac.uk/get-involved/alumni/events-and-reunions/oxford-medical-school-reunions.

CAREER ADVICE FOR JUNIOR DOCTORS

OMA recognises the challenges facing young doctors, some of whom are seeking inspiration and advice on their future careers. We feel OMA could play a role in facilitating informal relationships and informal career advice. If you feel you can help, please contact Dr Will Salterton (wjsalton@gmail.com). We are particularly looking for consultants, GPs and senior trainees who qualified between 1990 and 2010 and are up to date with training programs and consultant recruitment.

RECONNECTING WITH FRIENDS AND COLLEAGUES

If you would like to reconnect with friends and colleagues you have lost contact with over the years, please email us at oma@medsci.ox.ac.uk and we will try our best to help.

MEETING MINDS, 06 - 08 APRIL 2022

The University of Oxford creates the virtual opportunity for alumni, current students, staff and visitors to come together to celebrate the 25th anniversary of the Oxford Medical School. The lecture series will be accessible online: www.medsci.ox.ac.uk/oma. Details of previous lectures can be found here: www.medsci.ox.ac.uk/get-involved/alumni/events-and-reunions/oxford-medical-lecture-club.

CONTRIBUTIONS TO OXFORD MEDICINE

We welcome your contributions to future editions of Oxford Medicine. Please contact us at oma@medsci.ox.ac.uk. Details of previous issues can be found here: www.medsci.ox.ac.uk/get-involved/alumni/events-and-reunions/oxford-medical-lecture-club.

OMA ADVISORY BOARD (OMAAB) MEMBERS

Dr Lyn Williamson (President), Dr Roger Bedley (Honorary Treasurer), Dr Zoe Alexopoulos, Professor Sir John Bell, Sir Michael Dixon, Ms Christine Farchild, Dr Sheng (Tom) Law, Dr Laurence Leaver, Dr Tim Littlewood, Dr David McCartney, Professor John Marmo, Ms Bella Pratt, Professor Gawen Screaton, Professor William Seligman, Professor John Stein, Dr Catherine Swales, Dr Robert Wilkins, Dr Kevin Windmack, and Miss Carolina Valensise.

OMA THANKS

We owe a huge debt of gratitude to Ms Christine Farchild for steering OMA through the last couple of years of staff changes and varied challenges. We bid a fond farewell to Ms Rebecca Ward, who for the past year has worked as interim Alumni Relations Manager. We thank her for her hard work and dedication during her time in post. We warmly welcome Ms Bella Pratt as our new Alumni Relations Manager and look forward to working with her.

CONTACT PREFERENCES

Please let us know if you have personal details changed or go to the OMA website to update yourself.

OXFORD MEDICAL LECTURE CLUB

The Oxford Medical Lecture Club invites distinguished, entertaining and interesting speakers to talk about their specialty and the latest developments in clinical and scientific research. The meetings are now held at St Hugh’s College on the last Monday of each month.

Future speakers:

Monday 31 January 2022: Renal Arteria – has EPO had its day? Professor Chris Wrenn (1972 Keble College), Associate Professor of Medicine at the University of Oxford and Emeritus Fellow and former Senior Research Fellow in Clinical Medicine at Jesus College, Oxford.


If you are interested to receive notifications of the meetings, please contact oma@medsci.ox.ac.uk. Details of previous lectures can be found here: www.medsci.ox.ac.uk/get-involved/alumni/events-and-reunions/oxford-medical-lecture-club.
Malaria - Agues and Strains

Before he took up the Regius Professorship in Oxford, William Osler was very familiar with malaria in Baltimore (where he may have been the first to institute a routine blood test—the malaria blood smear—in all febrile patients).

In 1902, the second Nobel Prize in Physiology or Medicine was awarded to Ronald Ross for his discovery that “dapple winged” (anopheles) mosquitoes transmitted malaria. Nearly two decades later, in 1920, London, Epimen and Aldershott, Ross led large studies of antimalarial treatment in soldiers returning from the First World War. In 1924, the Dutch had planted the high yielding Cinchona ledgeriana. During the Second World War, military authorities, knowing that malaria often killed more soldiers than bullets during wartime, and that a Japanese expansion in the Pacific would occur, the parasite strains were more drug sensitive and dose treatment regimen was eventually endorsed by WHO. Meanwhile in Africa, where most deaths from malaria occur, the parasite strains were more drug sensitive and chloroquine was working well, although there were increasing concerns about the cardiovascular toxicity of parenteral administration. Then, in 1984, the WHO abruptly announced that parenteral chloroquine should no longer be used. At that time, malaria was killing about a million children each year in Africa, and there was no alternative to chloroquine in most of the continent. In pharmacokinetic studies in Zambia and The Gambia, we showed that simple adjustments to the dose regimen were all that was needed to make parenteral chloroquine safe. Unfortunately, chloroquine resistant parasite strains soon swept across Africa and, as in Asia, quinine (at the new correct doses!) had to be reintroduced for severe malaria.

In Thailand, we were studying a new antimalarial drug (mefloquine) which had been developed by the US Army during the Vietnam War. In 1984, forced by the increasing failure of the other antimalarial drugs, Thailand was the first country to deploy mefloquine. Unfortunately, the initially recommended dose was too low (a recurring problem with antimalarial drugs). This probably contributed to the rapid emergence and spread of mefloquine resistant strains of P falciparum. Although we could show that higher doses of mefloquine were more effective and reasonably well tolerated, resistance rapidly worsened. By the early 1990s, we were facing potentially untreatable malaria. Our salvation was a Chinese herb (qinghao; Artemesia annua). We had visited China first in the early 1980s to learn about Qinghaosu (artemisinin). Remarkable claims had been made for the herbal medicine, which seemed to be too good to be true. We were offered the Chinese drugs for testing by Professor Li Giao Quo (the key clinician in the Chinese project 523 discovery programme), but we were dissuaded by WHO. They were worried about the purity of the Chinese medicines and promised that they would soon provide us with a quality product for testing. The politics behind the scenes was complex and convoluted, and worthy of a le Carré novel, but suffice to say that WHO never did provide the drugs. In the end, the Southeast Asian countries voted with their feet and started to import (and in the case of Vietnam) cultivate and produce artemisinins. We were able to obtain the Chinese drugs (sometimes via rules over the China- Burma border, sometimes via suitcases of drugs from markets in Ho Chi Minh City) and test them. The Chinese claims proved correct – the artemisinins were more rapidly acting antimalarials than anything we had ever seen, and they were very well tolerated. Indeed, they were so well tolerated and effective that the ACTs proved to be better than mefloquine. We took the Chinese drugs to The Gambia in West Africa in 1989 and then, in a large programme (the Shoklo Malaria Research Unit), we showed that ACTs proved to be better than mefloquine, and it had no nasty central nervous system side effects, but we found it caused potentially lethal ventricular arrhythmias (the marked ECG QT prolongation had somehow been missed in development). Fortunately, the ACTs proved to be the best antimalarial treatments ever.
there was reluctance by international agencies to accept the Chinese medicines outside Asia. In 1995, we began to test a new ACT from China called artether–lumefantrine. This was also introduced initially at a dose that was too low but, after we found the correct dose, its use expanded. Today, it is the most widely used antimalarial drug in the world. In 2005, the ACTs were finally recommended by WHO as first line treatments for falciparum malaria everywhere in the world. They have contributed substantially to the global decline in malaria mortality. Some five hundred million ACT treatments are now given each year.

Meanwhile, in Vietnam from the beginning of the 1990s, the newly formed unit in the Hospital for Tropical Diseases, Ho Chi Minh City, began a study of the treatment of patients who could replace quinine in the treatment of severe malaria. These detailed clinical investigations led us to conduct multinational randomised trials in Asia and then Africa. These RCTs showed that artesunate reduced the mortality of severe malaria by about one third. It was also better tolerated, easier to accept the Chinese medicines outside Asia. In 1995, we led me to see the absurdities of my arguments. On one Socratic dialogues, with a glass of sherry. He listened to my

Eventually, the evolved spread of successful individual malaria parasite  

The centers work closely together. In collaboration they have created a third grouping: The Wellcome Centre For Ethics and Humanities. No other British university, and few across the world, have such breadth and depth in medical ethics. How this came to pass is a meandering, and perhaps a

If one person can be credited as the originator of medical ethics in Oxford that person is Jonathan Glover. He was tutor in philosophy at New College in the 1970s, one of the leading moral philosophers of his generation, and a medical ethicist before there was such a subject. I first met Glover when I came to New College in 1970 to read physiology and philosophy (PHPH). Glover’s tutorials were Socratic dialogues, with a glass of sherry. He listened to my essays without interruption and then, through questioning, led me to see the absurdities of my arguments. On one occasion he summed up: “So, Terry, you believe that the morally right thing to do is to kill everyone in the world, painlessly.”

In the late 1970s, in the Department of Psychiatry, Bill Fulford, a young lecturer, was working towards a DPhil. Nothing unusual about that. What was unusual was that the DPhil was in linguistic philosophy. At the same time, issues in medical ethics were being discussed in medical schools. Ranjan Gillon, editor of the Journal of Medical Ethics, was encouraging students and doctors to write about ethical issues in clinical practice. Ted Shottter had founded the London Medical Group, a student-led society, which organised seminars in ethics across several London medical schools. In Oxford, Mary Ryan, Murray Longmore and I started the Oxford Medical Forum. Murie Gray, then a young public health doctor, hearing of this initiative, enthusiastically helped get the Forum off the ground. He gave his own money to pay speakers’ travel expenses and set up an Advisory Committee that met once a term. The Committee was chaired by Sir Richard Doll. It included several senior professors. It included Derek Parfit – a megastar of Western philosophy – and also economist Amartya Sen, who went on to win the Nobel Prize in 2013. How many universities would clinical students be given such support?

In the late 1980s, Oxford clinical students organised their own questionnaires to find out what they wanted covered in the medical curriculum. Their report landed on the desk of Sir David Weatherall, then Nuffield Professor of Medicine. In that report there were seminars for students in ethics and communication skills. Entirely by chance, in the same week, a proposal for seminars for clinical students in ethics and communication skills was made. That proposal was written by Fulford and me. Weatherall saw the opportunity to develop the teaching beyond our proposal. He suggested that we write an application to the Leverhulme Trust to develop a course in these areas, and to produce materials of value to medical schools throughout the country. The project was called The Oxford Practice Skills Project. The applicants were Weatherall himself, and Caroline Miles. Caroline Miles was chairman of Oxfordshire Health Authority. She refused to be called the Chair: “I am not a piece of furniture.” She had extensive experience at a high level in both public and private sectors. Described as “one of Nature’s Head Cops” if she was feared by many. Behind the forbidding façade, however, there was a kind, loyal and approachable person. On one occasion she joined my wife and me and our young daughter for a teddy-bear weekend at Cogges Farm (near Witney) and brought her own much loved, and much worn, teddy-bear to the picnic.

In 1990, the Leverhulme Trust funded an administrative secretary – Anne Yates – and me, for four years, with Fulford and Miles as unpaid advisors. Our first meetings were held at a table at The League of Friends in the John Radcliffe Hospital. After much opposition, the Hospital and University agreed to create an office in what was then the wide, long corridor on level three.
The teaching of ethics and communication skills in Oxford medical school began in 1991. There was no curriculum time given to these subjects. Every seminar had to be negotiated with those few friendly consultants who would allow the students, attached to their firms, time to attend. Whilst Fulford and I had some expertise in ethics, we had very little in teaching communication skills. Luckily, Oxford had one of the country’s medical schools, the general practitioner Theo Schofield. Schofield was co-author of The Consultation, the book that popularised the importance of establishing a patient’s ‘ideas, concerns and expectations’. The book was better known as ‘Pendleton et al.’ and Schofield often referred to himself as ‘et al’. The book also established the ‘Pendleton pack’ - first, concentrate on the positive and only then say what might have been done better. Craig Revel Horwood could learn a thing or two from Pendleton et al.

Schofield’s charisma encouraged a number of local general practitioners to invite Oxford doctors to become tutors in communication skills. They were helped by actors, trained and coordinated by Tamsin Heatley, a successful TV actor and daughter of another great communicator, Heatley. The biochemist who worked with Florey on the early trials of penicillin. Many years later and after significant development by Oxford alumni, Category of Fellows was set up. The teaching of ethics and communication skills was taken over by the Department of Primary Care.

When the Practice Skills Project came to an end, the University could not let the teaching of ethics (or communication skills) cease - thanks to the GMC’s Tomorrows’s Doctors. Weatherall pushed for a University Department of Communication Ethics, to which some well-connected people from top, and the names of some well-connected people from your advisory board at the bottom. Send out all your letters on that notepaper and see what happens. This was in the 1990s. These days the notepaper would be replaced by a website.

We chose a name: The Ethox Centre. Some thought it sounded like a chemical, but it included ‘ethics’ and ‘Oxford’ in a simple word. We designed the notepaper. Soon, with considerable help from John Ledingham, one of the great figures in Oxford medicine, and from Caroline Miles, the Ethox Centre received its first major donation: £500,000. Mike Miles’ experience in the public and private sectors proved crucial. Had the money been given directly to the University, it might have been distributed among two or three undistinguished areas of medical ethics. But, as part of the donation, a large proportion would have been credited off. Second, the University would have set up a managing group of senior medical and surgical professors. That group would have controlled how The Ethox Centre could spend what remained of the donation. Many of those professors were antagonistic to the idea of medical ethics. Mike Miles advised setting up an independent charity and appointing supportive trustees. She gave another piece of sound advice: ‘Don’t hoard the capital to live off the interest. Spend the money over three to five years employing face with primary care doctors to help in making practical decisions around resource allocation in real health care.

Further NHS reorganisation led Sian Griffiths, the Director of Public Health, to set up a resource allocation committee for the whole of Oxfordshire. Five years later, a national committee (known as NICE) was established to make decisions around resource allocation in health care covering the whole country. That committee borrowed many of the ethical principles and processes that had been developed in Oxford.

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don’t do anything to help the people who will carry out interesting research. Only by doing good work will the Centre raise further money.’ That first donation was used in part to create a research post. The successful applicant was Michael Parker. The research until Parker’s appointment had been focussed on issues relevant to clinical medicine: Jacinta Tan and Anne Stewart’s work on anorexia nervosa being one example. Parker started working with clinical geneticists and that led to his becoming involved with medical scientists. A few years later, Mikey Dunn was appointed. He developed the medical student teaching. He extended the clinical research to include ethical issues arising in care homes. He is now professor at the University of Singapore.

As Caroline Miles predicted, the more work we did the more funding we were given. The snowball got bigger. As the research increased, so more and more bright people from around the world applied to work with us, such as John McMinn, now professor of Bioethics at Otago University.

The Centre grew, the work increased. I was talking with Bill Fulford one day and he said, ‘You know, this is the kind of planning’ I was many years from retirement, but I had seen research centres dwindle to nothing after the original director retired. If Ethox was to prosper in the longer term it would need a new director. And why wait until I retired? So, I stood down and Michael Parker became the second Director of The Ethox Centre. He has greatly expanded the activities in ethics and medical research. The Centre now has a particularly strong interest in collaborative global research and the ways in which such research can be ethically and effectively carried out in low and middle-income countries. Bursaries are provided to help build capacity in bioethics in these countries. Under Parker’s leadership, many at Ethox (especially with Noreen Collins and others in the Big Data Institute in the Department of Population Health, where Ethox is housed. In collaboration with the Bremen Institute of Bioethics at Johns Hopkins, Ethox has established a major initiative in ethical issues relating to infectious diseases from a global perspective (GUIDE). Over the last two years, Parker has served on the Government’s Coronavirus advisory group, SAGE, and many in Ethox have been involved in projects related to the pandemic.

At its origin, Ethox staff could fit round a small table in The League of Friends. There are now over 50 staff including a dozen research students.

The Uehiro Centre’s history has been very different from that of The Ethox Centre. The seed was planted on 6th August 1945 when Hiroshima was destroyed by the atomic bomb. A young man, Tetsuko Uehiro, not yet 40 years old, was dispatched to Tokyo to give the Japanese people. His stroke of genius was to invite the Chairman of the General Medical Council (GMC) Education Committee. Two years later, in 1993, that Committee published its seminal document on medical education: Tomorrow’s Doctors. This document outlined the medical curriculum that the GMC required all medical schools to follow. For the first time, both ethics and communication skills were included as core parts of the curriculum, no doubt influenced by the chairman’s experience on the Oxford Practice Skills Project Advisory Panel.

One night, in 1999, my phone rang. The caller asked me if I would be interested in a multi-million-pound donation to the University of Oxford in support of practical ethics. He explained that he was ‘out in Tokyo’ – David Morris, then head of the Ethics and Law Office. I didn’t even know, at the time, that the University had a Japan office. Morris explained that there was a Japanese Foundation potentially interested in funding work in practical ethics at the University of Oxford. Would I meet with the Foundation? Still half asleep I said ‘I should come to Tokyo now’ Morris said that the Director would come to Oxford.

That is how I came to meet Noboru Maruyama – at the Bath and North East Somerset (B&NES) Holywell Street. We walked round New College garden and talked about the novels of Agatha Christie. Christie’s second husband, Max Mallowan, studied at Oxford. Or Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an aficionado of the summer series which was televised every year. Maruyama proved to be extraordinarily knowledgeable about British crime fiction. Indeed, he was an af...
The Dark Art of Monitoring Clinical Trials

Professor Tim Peto
(1968 Brasenose College), Professor of Medicine and Co-Leader for the Infection Theme of the Oxford Biomedical Research Centre

My Introductions into Clinical Trials

My first exposure to clinical trials was in the early days of AIDS. I was a clinical lecturer to David Warrell. In 1987, David Warrell was asked to chair an MRC Committee to advise on undertaking clinical trials on AIDS. He convinced me that he was the man for the job. His name was Chris Whitty. When this small study ended, there was only marginal evidence that artemether was better than quinine.

How do DSMCs Work

Since then, DSMCs have become better organised. The fundamental changes accruing to the consent and the Committee follows a charter. They are independent and are therefore not generally authors of the publication. However, there is still no formal training for this role. The investigators remain blind to the study arms and the DSMC approves the analysis plan before any data is available. This is to be sure that investigators, some of whom are heavily invested in one study arm being shown superior to another, can be protected from accusations of possibly interfering, intentionally or unintentionally, with the study to get a result they want.

The DSMC’s role is to see the actual data in real time. The first part of the meeting is spent on the trialists updating the DSMC of the progress of the study and share any concerns about any external hindrances to the study. The closed meeting is presented by the trial statistician. The DSMC has a number of roles. They clearly need to protect study patients, both after enrolment and who plan to enrol, from possible harm. They also need to consider the possible societal benefit of the new treatment to patients not in the study who would benefit if the treatment were adopted nationally. In addition, funders and trialists need protection from the cost of wasting resources if a trial is stopped too early preventing the trial giving a clear result. The DSMC also has a role of an experienced ‘critical friend’ advising on data integrity, data collection, methods for the unbiased ascertainment of end-points and analysis plans.

Trial protocols plan to recruit a pre-determined number of patients for a pre-determined period of time. In most cases, the trial reaches its natural end and during the trial, the DSMC simply reports that ‘they have no safety concerns’ and recommends that the trial should continue ‘as planned.’ However, sometimes a difference between the two study arms gradually emerges. The DSMC has then the challenging task to monitor the differences and decide when, if ever, to stop the trial early. DSMCs only stop a trial early if they consider that there is evidence ‘beyond reasonable doubt’ that one arm is superior to another and such that it will change clinical practice.

At the meeting, DSMC members have two main anxieties and opportunities for making major mistakes. They might allow a study to continue too long when it is quite clear that one arm is superior to another and could be criticised for causing harm, or even death, to trial participants. Alternatively, they might be over-cautious and stop a study when, on reflection, there is only a small difference between the study arms. The DSMC could then be criticised for wasting time and money and missing an opportunity to identify a new effective treatment.

When I started, I played on an excel spreadsheet using a random number generator and learnt to get, even with no differences between study arms, one arm often has a lucky run showing an apparent difference. I learnt that studies should continue until there is virtually no chance of stopping a trial merely because of a lucky run.

Examples of DSMC Decisions

Over the last 20 years, I have chaired about 30 DSMCs of major trials. We have given overall reassurance and support to the trialists and sometimes made suggestions to improve the design or conduct of the study. However, on a few notable occasions, the DSMC recommended that the trial should deviate from the planned protocol.

Unexpected Outcomes

In 1999, children with severe malaria were randomized to routine prophylactic phenobarbital or placebo to determine if it would reduce the occurrence of seizures. There was an unexpected change in mortality which was not statistically significant. The DSMC decided to extend the trial for a further season to determine whether the increased mortality was only a statistical wobble. A year later, the mortality difference increased and the treatment was rightly continued. However, it had happened in reducing seizures. The extension of the trial avoided the possibility that the mortality increase would have been disregarded as ‘unexpected and insignificant’ allowing the use of a dangerous treatment.

Duration of Action

In 2003, the MRC studied the efficacy of co-trimoxazole (sulfamethoxazole plus streptomycin) in HIV infected children without access to HIV treatment. After six months of treatment, co-trimoxazole clearly halved mortality. However, the DSMC decided not to stop the study at that stage because it would have felt that results were continuing to improve and a short-term study were insufficient to change guidelines for long term use. At the next interim analysis, after a median follow up of 19 months, the reduction in mortality persisted. The DSMC stopped the study. The results were considered convincing and National Guidelines were changed protecting children until HIV whilst awaiting HIV treatment. Interestingly, no-one complained that the trial went on too long.

Generalisability of Result

In 2005, the Oxford Welcome Trust Unit in Bangkok organized a study comparing aquamat with quinine against severe malaria in four countries in Southeast Asia. After one year, the results found clear evidence that aquamat was superior. However, the difference were found in the results from Myanmar. The DSMC felt that rational sceptics might be concerned about the generalisability of results from one centre with little experience of clinical trials. The trial was therefore continued for another season. aquamat was clearly superior in all countries and the DSMC then stopped the trial. The result wasartesunate being widely adopted for adult treatment of malaria and also provided the justification for the funding of a similar study in African children which showed the same leading it to be adopted worldwide.

Conclusions

I have given some examples of DSMCs changing the course of a trial. In other cases, continuing trials to continue to optimize the chance of a convincing result. Many novice DSMC members are understandably anxious whenever there is some evidence that the trial has been run to remain calm and find a counter-argument to persuade the committee that the trial should continue. I have found this work immensely rewarding, sometimes very exciting.
What Have We Learned About Immunity to SARS-CoV-2?

Professor Susanna Dunachie
(1991 New College, NHRI Global Research Professor, Primary Honorary Consultant in Infectious Diseases and Medical Microbiology, University of Oxford)

Covid-19's colossal impact on excess mortality, our personal and professional lives, and the well-being of our fellow citizens, raises questions about lessons for the future. Observing the spread of a novel pathogen in an unexposed global population has been a painful experience. The long-term sequelae of SARS-CoV-2 are unknown. Many people (including children) are suffering "Long Covid" so research is essential.

Although the UK stands out for its continuously high rates of infection, the UK's contributions to knowledge from high rates of testing, world-leading genomic surveillance, the open sharing of accurate data, high vaccination rates, and driven, collaborative scientists in academia and the public sector are reasons to be proud. The joint national "SARS-CoV-2 challenge study" has given the world numerous insights into immunity to SARS-CoV-2. Oxford University scientists have collaborated in an unprecedented effort to counter the virus

SARS-CoV-2 is the seventh coronavirus to infect and cause disease in humans. At the start of the pandemic, immunologists considered existing knowledge from other coronaviruses infections. Severe acute respiratory virus (SARS) and Middle East Respiratory Syndrome (MERS) were already recognised threats. SARS was rare and disappeared by 2004, perhaps through a combination of rigorous containment policies in Asia, and the transmission dynamics of SARS including the fact that only symptomatic subjects were infected. MERS still exists but has not spread significantly outside the Middle East. There are four "seasonal" or "common cold" human coronaviruses (HCoV) which cause mild, rare cold illnesses worldwide with most people developing antibodies to all four during childhood.

Studies were set up in Oxford and elsewhere to measure the immune response to SARS-CoV-2. The spike protein is a relatively conserved and immunogenic molecule studded across the surface of the virus, and the target of all the vaccines currently licensed in the UK. Antibodies to the spike can play several roles including neutralisation, complement activation, and binding to cell surface receptors to enhance viral entry. Humans probably haven't evolved to have sterile immunity against SARS-CoV-2. Cellular immunity, while more difficult to quantitate, may be just as important. HITs for other infections (such as swine flu but sadly, this was not observed for SARS-CoV-2 in the UK). Only six per cent of adults in England had antibodies by July 2020 (an effect of lockdown), indicating we had a very long wait for population immunity.

1. Silent Acquisition of Immunity
We hoped to see rapid asymptomatic seroconversion, that is high rates of antibodies appearing in people who were not aware they had been infected. This had been the case (to a certain extent) with swine flu but sadly, this was not observed after SARS-CoV-2. Only six per cent of adults in England had antibodies by July 2020 (an effect of lockdown), indicating we had a very long wait for population immunity.

2. Immunity after Covid-19
Another hope was that healthy people who had suffered Covid-19 would never catch it again, rather like the measles. We had clues this might not happen from existing studies of the common cold coronaviruses, which demonstrated that people's antibodies wane and re-infections are frequent after about a year. Now we know that re-infection with SARS-CoV-2 is not a rare event, although the effects tend to be mild. Our healthcare worker study and others have found not only a large and unpredictable variation in the strength of the immune response after SARS-CoV-2, but that immunity wanes. However, people who had infections achieved very high antibodies to SARS-CoV-2, but this is not the case with the different viral infection serotypes. The spike protein can provide a more desirable "hybrid immunity" greater than after infection or vaccination alone. Whether exposure to virus after vaccination can boost and extend immunity is under study.

3. Vaccine-acquired Immunity
It was hoped that vaccinated people would not catch or pass on SARS-CoV-2. In fact, "vaccine breakthrough" infections are now common. People who have had two doses of UK-licensed vaccines are much less likely to catch SARS-CoV-2 but can still acquire the infection and transmit it. The UK is now rolling out "booster" third doses of vaccines which will hopefully greatly reduce the number of vaccine breakthrough infections this winter. VIBRANT is an Oxford-led collaboration with UKHSA and other universities of the

Box 1: Oxford University's Contribution to Knowledge on Immunity to SARS-CoV-2
- The Oxford/AstraZeneca vaccine
- COVID-19 Viral Challenge Study
- RECOVERY & other hospital-based drug therapy trials
- PRINCIPLE, PANORAMIC, ATOMIC & other community-based trials
- Test development: antibodies (including haemagglutination assay), PCR tests & evaluation of lateral flow devices (LFV)
- COMORE & "Long COVID" clinical, immunological & imaging studies
- Humoral immune including neutralisation
- Inflammatory response
- T cell research
- Deep Phenotyping including COMBINE
- Data integration & analysis - SARC, OpenSafety, Office of National statistics analysis on antibodies and vaccine effectiveness
- Vaccine response including PITCH & OCTAVE

And many more: www.ox.ac.uk/research/projects/covid-19

4. Optimal Vaccine Strategies
At the end of 2020, the UK government took the brave but science-based decision to deliver two doses of Pfizer/BioNTech or Oxford/AstraZeneca vaccine 12 weeks apart. This doubled the number of people who could rapidly benefit from vaccine protection against severe disease that one dose gave, but left people temporarily exposed without the higher protection of two doses. The UK "got away with it" for two reasons: (a) the surge of infections from the Delta variant. Our PITCH study showed that the longer dosing interval actually produced higher antibody levels and a T cell response associated with improved memory. Further studies from UK and Canada confirmed greater vaccine effectiveness from the longer dosing interval.

5. A Vaccine for All
The vaccines licensed in the UK are all remarkably immunogenic, including in older people. However, ongoing studies including DC-TAKe, suggest that some groups of patients have a poor antibody response to vaccines. These include transplant recipients who are immunosuppressed, and people receiving immunomodulatory therapies which block B cell antibody production. Identifying people with low responses will allow different vaccination and management plans for them (such as administration of monoclonal antibodies and emerging antivirals such as Merck's molnupiravir and Pfizer's Paxlovid). Mucosal vaccines in clinical trials (akin to the intranasal flu vaccine) may show further benefits. Only six per cent of Africa's sub-Saharan population is fully vaccinated and, from both a humanitarian and global health security perspective, this inequity must be remedied.

6. Herd Immunity
The "herd immunity threshold" (HIT - the level of immunity required in the population to prevent the infection from spreading) is extremely important to protect vulnerable people in the community whose immune systems may not respond to the vaccine. In autumn 2020, the Office of National Statistics estimated that 93 per cent of the adult UK population had antibodies to the spike protein of SARS-CoV-2, and yet we still have a high UK prevalence of new cases. It is still not known whether anti-spike antibody levels are a good marker of immunity to SARS-CoV-2. Cellular immunity, while more difficult to quantify, may be just as important. HITs for other infections (such as swine flu but sadly, this was not observed for SARS-CoV-2) vary in their early years before acquiring sequential immunity to render subsequent infections mild while the virus circulates indefinitely.

- SARS-CoV-2 may be destined to be the fifth "common cold" coronavirus, but such immunity is hard-won in a globally naïve population and may take decades to equilibrate, even in children who experience mild illness in their early years before acquiring sequential immunity to render subsequent infections mild while the virus circulates indefinitely.

Conclusions
There is still much to learn about immunity to SARS-CoV-2, including the spectre of Omicron. We should focus on minimising harms such as Long COVID, and the risks to the immunocompromised.

- Protection against Covid-19 may depend on a mixture of non-specific defence mechanisms, adaptive immunity (antibodies and T cells to SARS-CoV-2), the environment (ventilation, and humidity levels) and the "booburden" (number of infectious virus particles encountered) as well as chance.
- Humans probably haven't evolved to have sterile immunity (100 per cent protection against any infection to respiratory viruses). Many respiratory viruses infect young children briefly and then experience mild illness in their early years before acquiring sequential immunity to render subsequent infections mild while the virus circulates indefinitely.

Photo by Prof Ellie Barnes. PITCH *(Protective Immunity from T cells to Covid-19 in health workers) consortium www.pitch-study.org

Past waves in the stormy seas of the pandemic diminish so we can once again stand confidently on deck.

It was hoped that vaccinated people would not catch or pass on SARS-CoV-2. In fact, "vaccine breakthrough" infections are now common. People who have had two doses of UK-licensed vaccines are much less likely to catch SARS-CoV-2 but can still acquire the infection and transmit it. The UK is now rolling out "booster" third doses of vaccines which will hopefully greatly reduce the number of vaccine breakthrough infections this winter.
Destined for the pathways. Benralizumab acts so fast our team – in a trial led by my colleague, Ian Pavord, described the severe eosinophilic phenotype: people with adult onset, severe asthma life was miserable, and often limited. Older patients remember being in special schools for asthmatics and witnessing friends dying from attacks. Steroids and antibiotics certainly made a vast difference to most patients, though as a registrar I had little to offer those with severe disease, beyond ever escalating doses of inhaled corticosteroids. The clinic had a reputation for either poor adherence or insoluble clinical problems. Just 10 years later, the outlook now is very different, for four reasons.

First, clinical phenotyping and biomarkers. Not all asthma is the same. My colleague, Ian Pavord, described the severe eosinophilic phenotype: people with adult onset, severe disease, which responds dramatically to systemic steroids, characterised by excess eosinophils in sputum and blood. This observation rescued a whole class of drugs – the interleukin (IL)-5 monoclonal ‘biologics’ by failure in trials. Targeted to the right patient, based simply on a full blood count eosinophilia, these produce dramatic improvements, reducing exacerbations by three-quarters, and obviating the need for maintenance steroids. We treat over 300 patients on these monthly or bimonthly subcutaneous injections: patients who typically describe them as ‘transformative’.

Five biologics are now licensed targeting the three pathways: immunoglobulin E, the IL-5 pathway and the IL-4/13 pathways. Benralizumab acts so fast our team – in a trial led by Mona Rafidah – are testing its use first line for acute exacerbations, in asthma and chronic obstructive pulmonary disease. If successful, these drugs will consign systemic steroids to the history books.

Secondly, the multi-disciplinary team. For too long for those with ‘difficult asthma’, the elephant in the room was poor adherence. Now our Sherlock Holmes pharmacists has scrutinised prescription records before I first meet the patient. Adherence is addressed non-confrontationally with the aid of a home FeNO suppression test: Fractional inhaled nitric oxide directly measures interleukin-13-mediated airway inflammation in exhaled breath, which takes 10 seconds to measure by a simple hand-held device. Patients with high FeNO take home a micro-chipped inhaler and FeNO monitor for a week. In two thirds with poor adherence, FeNO falls, symptoms improve, and we offer smart phone synchronised inhalers: problem solved. The other third, whose FeNO remains stubbornly elevated, have steroid-unresponsive disease and need biologics, short-cutting months of ineffective medication changes. Another key MDT member is our speech and language therapist, identifying and treating tarygael wheeze. Such vocal cord dysfunction is terrifying, leading to inappropriate treatment, recurrent admissions, and on occasion intubation. Likewise, many symptoms are due to breathing pattern disorders, which are debilitating – think Emma Raducanu exiting Wimbledon – but are effectively treated by our physiotherapists.

Thirdly, macromolecules. I’m always looking for another ‘treatable trait’: persistent bronchitis. Those with a chronic mucopurulent cough and ‘type-2 low’ asthma invariably have lower airway colonisation with Haemophilus influenzae, with a striking response to long-term, low dose macromolecules. The mechanisms underlying this drug’s unique antibacterial, antiviral and anti-inflammatory effects are a major current focus for my research group, using infection of air–liquid interphase cultures, bacterial metagenomics and single cell sequencing of bronchoalveolar samples.

Fourth, ditching salbutamol. Asthma still kills three people per day in the UK. The National Review of Asthma Deaths found over-reliance on short acting bronchodilators a major contributor. When asthma treatment is separate inhalers of salbutamol providing rapid symptomatic relief, and slower-acting inhaled steroids which reduce mortality, inevitably many people reach for the blue inhaler and give up with the brown. Four large RCTs found replacing separate inhalers with combination formoterol/ budesonide inhalers reduces symptoms and hospital admissions, even in mild asthma. Our Oxfordshire guidelines now favour this approach, and we expect national guidelines to follow.

Greening the NHS
In light of COP26, it’s heartening to know our guidelines will play a major part in greening our NHS. Chondrfucin biosynthesis and targeted in previous pressured metered dose inhalers (pMDIs) were withdrawn due to destruction of the ozone layer. Unfortunately, current propellants are powerful greenhouse gasses. The propellant HFA227ea is 3,320 more potent than CO2. One Ventolin inhaler has a carbon footprint of 28kgCO2e per inhaler: equivalent to a round trip from Oxford to Leicester in an average car. Incredibly, pMDIs in UK are responsible for 3.5 per cent of the entire NHS carbon footprint. A switch to a dry powder preparation, verified in our new guidelines, will reduce that by 94 per cent.

The Future
The biologic revolution continues. The next generation will target alarmingly IL-25, IL-33 and TSLP, molecules produced by damaged airway epithelium which activate the type-2 inflammatory cascade. Acting further ‘upstream’ they are likely to be potent and treat a wider range of biological phenotypes. Further advances will require new understanding of the complex immunological puzzle that is asthma. My group analyse the transcriptome and epigenome of airway tissue obtained at bronchoscopy on a single cell level, use whole genome sequencing to define rare phenotypes of asthma, and spatial transcriptomics to map where inflammatory proteins and lipids originate. We are now growing airway epithelial cells from induced pluripotent stem cells. On the further horizon might be cures for asthma. Asthma develops from the complex interplay of gene and environment and so must depend on epigenetic changes. We are analysing the airway epigenome at single cell resolution to identify those switches. Already there are nine epigenetic therapies with FDA approval for other conditions, so I’m optimistic the pace of change will only accelerate during my research career.

References
2. Howie T. The Rail.

Seeking Research Volunteers
For now, my team are always looking for healthy research volunteers to match our older asthma patients – do drop me an email if you’d like to hear more. And outside the lab, there remains an urgent need to improve air quality for the world’s urban populations and to make these life-saving, but highly dry powder inhalers affordable globally, where today asthma affects >350 million people and inflicts 400,000 deaths a year. We have the technology to prevent, given just a little bit more commitment from wealthier nations.

www.ndm.ox.ac.uk/team/timothy-hinks
@HinksLab

The Oxford asthma MDT ‘The Oxford Special Airways Multidisciplinary Team’

Performing continuous exercise laryngoscopy to diagnose exercise induced vocal cord dysfunction

A patient’s experience of living with asthma. Margie Kirstner, 2013 reproduced with permission from and © M KIRSTNER

@HinksLab

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A Breath of Fresh Air: Integrated Respiratory Medical Care

Dr Will McConnell (1998 Green Templeton College), Respiratory Consultant, Dorset County Hospital NHS Foundation Trust

On becoming a respiratory consultant in Dorset 20 years ago, the first instruction from management in the hospital was to discharge more patients from follow-up. But I had no idea about the skills, capacity and systems for managing these patients in primary care. If a patient deteriorated, who would notice and where would they get help? It was clear that there were some areas of excellence within the community, but other areas seemed to struggle to provide optimal respiratory care. Since then, one of my ambitions has been to identify and target those areas of greatest need and improve care in the community, enabling me to discharge patients safely or even prevent referral. No matter how wonderful we make our secondary care services, we are still only scratching the surface of respiratory care across the population. Teaching sessions have limited benefits, only by reaching a small proportion of community staff with rather short-term benefits. How could I get deeper under the skin of primary care and work in a more integrated way to really improve outcomes?

With my colleagues from neighbouring hospitals, we created an outreach team of nurses to support patients with COPD and asthma in the community, aiming to reduce admissions and facilitate discharge and to deliver pulmonary rehabilitation and asthma in the community, enabling me to discharge patients safely or even prevent referral. No matter how wonderful we make our secondary care services, we are still only scratching the surface of respiratory care across the population. Teaching sessions have limited benefits, only by reaching a small proportion of community staff with rather short-term benefits. How could I get deeper under the skin of primary care and work in a more integrated way to really improve outcomes?

But I was lucky to be working in Dorset, because the effects of the Lansley reforms did not endure for long there. Dorset CCG soon realised that a collaborative approach would be essential to improve outcomes and contain costs. Input from the providers of care was crucial to redesigning the pathways of care. The NHS providers of Dorset took the bold step to move away from contracts based on payment-by-activity to block contracts, thus completely changing the incentives for organisations within the system. The Government volte-face, encapsulated in the Five Year Forward view and then the NHS Long Term Plan of 2019, has made working together de rigueur and clinicians have a voice. Covid-19 has exemplified the benefits of this working – delivering the changes required for the NHS to cope with the pandemic would have been impossible if we had to wait for formal commissioning processes and market forces to determine the outcome. So now I find myself as Clinical Lead for a new Dorset Respiratory Clinical Network and a Clinical co-lead of the even newer South West Respiratory Network.

Integrated Respiratory Care

We are now practising Population Health Management for our respiratory patients. I have access to data about every asthma and COPD patient in Dorset. I can see where the areas with poor respiratory outcomes are, and which surgeries seem to be struggling. I can drill down to pseudonymised individual patient-level data and identify proactively those patients who could benefit from more detailed assessment in secondary care or from more advanced treatments, such as biologics for asthma. We have respiratory nurses embedded within most of our Primary Care Networks to lead the changes and support the primary care teams. I hold monthly MDT meetings with the PCN teams to discuss patients who are struggling with their disease and I see patients in GP surgeries with little waiting time, outside the traditional referral processes. We are creating Respiratory diagnostic hubs within the PCNs where patients can access the right diagnostic tests in a timely fashion delivered by skilled practitioners. I can access their primary care records in the hospital, so I can tell what treatments have been tried, how frequently they are exacerbating, whether they are clamping their preventer inhaler prescriptions. I know that the skills, capacity and systems exist in primary care to care for most respiratory patients. And if a patient deteriorates, we have systems that will notice it, and staff in the community with the skills to deal with it and with access to support from secondary care.

So, finally, I think I can discharge a patient from follow-up.

100 Years of Insulin - A Lifesaving Drug and Murder Weapon

Dr Neil Snowise (1974 Corpus Christi College), Visiting Senior Lecturer, Institute of Pharmaceutical Science, Faculty of Life Sciences and Medicine, King's College London

Murder by healthcare workers using insulin continues to this day. This year marks the centenary of the discovery of insulin, which was one of the twentieth century’s greatest medical discoveries. Before 1921, it was exceptional for people with type 1 diabetes to live for more than a year or two.

Frederick Banting was given laboratory facilities by J.J.R. Macleod, the Head of Physiology at the University of Toronto, to investigate the function of the islets of Langerhans. He brought in a research student, Charles Best, to assist him with his experiments, isolating insulin in 1921 and demonstrating its benefits to reduce the hyperglycaemia in dogs made diabetic by removal of their pancreases. Earlier work with pancreatic extracts had resulted in toxic reactions due to impurities. Macleod invited a biochemist, James Collip, to assist and he subsequently purified insulin, so it would be safe enough to be tested in humans, leading to great therapeutic success.

In recognition of their life-saving discovery, Banting and Macleod were jointly awarded the 1923 Nobel Prize in Physiology or Medicine, although this was contentious and increased the animosity between them; subsequent opinion was that Best should have shared the prize.

Murder Most Foul

The discovery of insulin revolutionised both the therapy and the prognosis of diabetes. Who would have envisaged that such a useful drug has also been used as a murder weapon, over many years and continues to be misused in this way? Serial murder by healthcare professionals is poorly understood but increasingly identified; a variety of methods have been used, of which insulin accounts for around 13 per cent, causing death through prolonged hypoglycaemia, when sufficiently severe. In a 2009 review, 66 cases of suspected or proven murder using insulin were identified from 10 countries and more have arisen since that date. A few of the healthcare perpetrators are doctors, but the vast majority are nurses.

This article looks at some examples of the more notorious cases where healthcare professionals have been convicted or accused of using insulin to murder others. The first published case where the perpetrator was a healthcare worker was Kenneth Barlow, a registered nurse, in Yorkshire, in 1957. He murdered his pregnant 32-year-old wife, at home in the bath, trying to make out that she had unfortunately drowned by accident. His account of events was suspicious and a second examination of her body revealed two injection sites in each buttock. This was over 60 years ago when limited assays available to measure insulin relied on finding the dose of insulin which caused hypoglycaemic convulsions in mice. Extracts of tissues from the victim’s buttocks were injected into mice, producing measurable quantities of insulin. He was sentenced to life imprisonment and released 26 years later, in 1984, still maintaining his innocence.

Advances in Toxicology

Toxicology can play a key role to provide evidence in many cases of suspected murder by insulin and has advanced significantly. Hypoglycaemia is the first clue to homicidal insulin use in living subjects, but valueless in victims found dead. 100 Years of Insulin - A Lifesaving Drug and Murder Weapon
**Insulin has revolutionised diabetes treatment, but who could have envisaged such a useful drug also being used as a murder weapon?**

**20th Century Serial Child Murders**

Fast forward several decades to the infamous case of Beverley Allitt, a State Enrolled Nurse at Grantham Hospital. In 1991, several unexpected infant deaths and unexplained illness occurred on the children’s ward where she worked. Initially, suspicions were raised at the tertiary referral hospital QMC, Nottingham, when referrals in a two-month period were over double the usual annual rate from Grantham. Painstaking investigations provided excellent evidence of insulin as the murder weapon, in at least two of the cases. With the more sophisticated analyses now available, assays revealed very low reactive insulin, accompanied by very low C-peptide. These findings, along with Allitt’s attendance during these attacks, finally led to her arrest. She was convicted of murdering four children, attempting to murder three other children, and causing grievous bodily harm to a further six. Sentenced to life imprisonment in 1993, she is currently detained at Rampton Secure Hospital. Perhaps the most notorious British serial child killer, Allitt was the subject of a book and a BBC dramatisation of the case, *Angel of Death* (2005).

**Expertise from an Oxford Doctor and Scientist**

One of the expert witnesses in the Allitt case was Professor Vincent Marks, who has a worldwide reputation in the field of suspected murder by hypoglycaemia. He had previously been an expert witness in the infamous case of British socialite, Claus von Bulow, at whose trial he testified in 1982 (and which led to his acquittal on a charge of attempted murder), since then he became increasingly interested in the forensic aspects of hypoglycaemia. Professor Marks has published widely, including a book *Insulin Murders*: He was an undergraduate at Brasenose between 1948 and 1952, published widely, including a book ‘The Stockport Murders’ reflected a different kind of healthcare worker serial killer, whereby the victims were seemingly chosen at random. Victorino Chua, a hospital nurse, injected insulin into saline bags and ampoules while working on two acute wards at Stepping Hill Hospital, Stockport, in 2011. He left these contaminated products in treatment rooms, not knowing who would fall victim to his actions. These were then unwittingly used by other nurses on the ward, leading to a series of insulin overdoses. In 2015, he was convicted by a jury at Manchester Crown Court of murdering two patients and 22 counts of attempted grievous bodily harm alongside other charges.

During the three-month trial, no motive ever really emerged for why Chua decided to kill his patients. According to Professor Marks, who was consulted on this case, there was overwhelming evidence of foul play by the administration of insulin. However, his conviction was largely based on a long-handwritten note from the self-styled “angel turned evil,” a high level of C-peptide generally indicates a high level of endogenous insulin production. A low insulin: C-peptide ratio can provide invaluable evidence of exogenous insulin administration.

Professor Vincent Marks (1948 Brasenose College) - expert witness at many court cases of hypoglycaemic murder

in the UK to offer insulin assays as a national service. His last appointment was Dean of Medicine in the newly established Post-Graduate Medical School at the University of Surrey.

21st Century Cases of Murder by Insulin

The “Stockport Murders” reflected a different kind of healthcare worker serial killer, whereby the victims were seemingly chosen at random. Victorino Chua, a hospital nurse, injected insulin into saline bags and ampoules while working on two acute wards at Stepping Hill Hospital, Stockport, in 2011. He left these contaminated products in treatment rooms, not knowing who would fall victim to his actions.

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He was jailed for life and subsequently failed in his 2016 applications for permission to appeal against both conviction and sentence length.

There have been a cluster of convictions in New South Wales in recent years, for murder by insulin where the perpetrator was a health care worker. In completely separate incidents, all of which came to trial in 2016, two nurses were convicted, as well as a Sydney GP Dr Brian Crichtt. The 2016 trial was told that a 63-year-old Crichtt killed his wife with a lethal injection of insulin so he could claim her life insurance and start a new life with his mistress. There were no traces of insulin found in Mrs Crichtt’s body, but there was other evidence that led to his conviction. Crichtt had viewed webpages outlining the dose required for a lethal injection of insulin the day before her murder and had tried to hide his internet search history.

**Modern Toxicology is not 100% Fail Safe**

Although scientific methods have advanced and assays for insulin and C-peptide can be invovled to provide strong evidence for the prosecution, they cannot prove foul play with 100 per cent certainty. Raised insulin levels could indicate a rare medical condition (such as insulinoma) rather than a crime or the evidence can be unclear. One such relatively recent case is nurse Colin Norris, who was convicted of murdering his elderly parents and attempting to murder a fifth by poisoning them with insulin at two Leeds hospitals. He was sentenced to 30 years in prison in 2008. The jury at Norris’ original trial was led to believe, by experts, that a cluster of hypoglycaemic episodes, among elderly people who were not diabetic, was sinister: In Professor Marks’ expert’s view, only the index case showed near one hundred per cent evidence of insulin poisoning with extremely high insulin levels assessed by immunoassay and very low C-peptide levels. When the trial was held in 2004, no insulin or C-peptide data was available, leaving only unexplained hypoglycaemia. The evidence against Norris was largely circumstantial as he was on duty at the time of these deaths, but this is not sufficient by itself to indicate guilt.

At the time, it was believed that such hypoglycaemic episodes, among people who were not diabetic, were “vanishingly rare” (words used by the trial judge), but more recent research has demonstrated that spontaneous hypoglycaemia in sick, elderly, frail patients is not as rare as previously believed.

In the 2014 review, entitled ‘Is insulin intoxication still the'...
What’s in a Name? Farewell Linacre

Dr Steve Ramcharitar
(V199 St Edmund Hall; Linacre College), Interventional Cardiologist at the Great Western Hospital, Swindon

Who or What is Linacre? For many of us, it’s an obscure red bricked graduate college that sits at the edge of University Parks. Initially, it was located at St Aldates as an experiment by the University for graduate students when the St Catherine’s Society left the historic music building to form an undergraduate college in 1962. Its first fellows included Dorothy Hodgkin (Nobel Laureate) and Sir Isaiah Berlin until it moved to its current location, a former convent in the 1970s. Its proximity to the science block meant it boasted famous Medics/Fellows: Sir Paul Nurse (Nobel Prize Medicine and former President of the Royal Society), Dr Jim Holt, Professor Anthony Bron and, in recent years, clinical medical students.

The name Linacre was suggested by Dame Lucy Sutherland, Principal of LMH (1945-71) and the first woman pro-vice-chancellor of the University in recognition of Thomas Linacre (c. 1460-1524), a great Renaissance classical scholar, physician and Fellow of All Souls. Some of his early works as one of the first English scholars to study Greek in Italy is exhibited in the college. He pioneered ‘new learning’ from the great classical texts and amongst his many pupils was Erasmus whose name is synonymous with international scholarships and a Medical School in Rotterdam. Linacre entered Oxford in c.1480, and in 1484, was elected a fellow of All Souls College. Although he did not practice medicine in Oxford, his knowledge, vision and charisma enabled him to become Henry VII’s appointed physician in 1509 before dedicating his later years to priesthood. He pondered on the relationship of Medical Science and God which we all as physicians can relate to. His brilliance we all share as he founded the Linacre professorship of anatomy.

The inspiration and legacy that Thomas Linacre set moulded many of its former students. It’s not only about the name but the ideology he stood for. But after a half a century, the college is about to change its name which is not without controversy. It has received 1.55 million pounds from a self-made billionaire Vietnamese businesswoman/philanthropist. It’s not the first time financially poorer colleges have changed their name as Manchester College became Harris Manchester after a multi-million pound endowment. Linacre will be the first to completely change to Thao College but hopefully, as medics, we can appreciate what Linacre did for us when we cycle past it on the way to the JR and be inspired.

A Christmas Break

Professor Chris Winearls
(1972 Keble College, Consultant Nephrologist in the Oxford Kidney Unit, 1988 to 2016)

A long time ago, I was the duty renal consultant for the Christmas period. The SpR rang to seek authorisation for a patient, who normally dialysed in one of our satellite facilities, to be admitted to the Oxford Renal Ward to allow him to be dialysed in the main central Oxford Dialysis Unit. He had end stage renal failure caused by neglected bladder outflow obstruction caused by carcinoma of the prostate. Now he had severe pain which had worsened since a fall in his bathroom. He could not get into a hospital car and there were no ambulances over Christmas to transport him in a wheelchair to and from his local dialysis unit. He came over and we parked him in a bed. The original pain, he told me, had developed about a month before and he had an X-ray at his local hospital. He had not been told the result. I phoned the DHG – the X-ray had apparently not been reported and was nowhere to be found. We requested another. It showed a metastasis in the neck of the femur. Our orthopaedic colleagues agreed to pin it prophylactically. They asked us to send the X-ray over to their hospital. It never arrived so they could not proceed. I asked for another X-ray. The request was refused on the grounds of unnecessary exposure to radiation. We were told that the first (or should I say second X-ray) would have to be found before he could be seen and operation upon. I knew it was hopeless to expect a search in any of a dozen places between the renal ward in the Churchill and the other hospital site, over Christmas, to be possible or fruitful. I had a mini-tantrum in the doctor’s office and decided to try again to resolve matters the next day.

I went in on Christmas Eve to find his bed empty and the juniors beaming.

“He has had his operation.” They said, “he was transferred for surgery last night.”

“Hooray”, but, “How,” I asked, “was the impasse resolved?”

“He slipped and fell next to his bed and fractured his neck of femur so we got another X-ray and the orthopods were happy to proceed.”

He returned to our ward, where I wished him a happy Christmas, but before I could apologise, he thanked me for all we had done for him and said how wonderful all the doctors and nurses were etc. I went home after finishing the ward round and treated myself to an extra slice of lemon in the ginless tonic.

Digital-First Primary Care?

Dr Chris Mason
(1977 Worcester College), Consultant Histopathologist, Exeter

© Dr Chris Mason (1977 Worcester College)
Memories of Oxford Medicine: Part Two

Dr Derek Hockaday
(1947 Brasenose College), retired consultant physician and endocrinologist

The weeks before taking up a consultancy are happy ones. In my euphoria I was persuaded by Jim Hadfield, the Surgical Tutor, to play in the Staff v Students rugby game. I had such a stiff neck after the game that a short West Country holiday with Judith was spoilt, our first ever away from the children.

I soon came down to earth with my first ward round, with a patient who was extremely anaemic from a combination of haemolysis and a hypoplastic marrow. I remembered one of Alec Cooke’s aphorisms, ‘Never allow death without benefit of steroids’, so, we gave her high dose steroids. The response was rapid. She had systemic lupus.

As Peter Sleigh used to say, there’s nothing so important as reputation, especially if you’re applying locally. Three episodes from my pre-consultant time contributed; first, I’d already had a run-in with Alec Cooke, because the system in his Diabetic clinic was for assistants to record their findings, and then for Ali to write the letters to the family doctors on any he wished. I protested that I really was in a better position to describe the state of a patient than he was. He eventually agreed but checked the letters, from which I learned a lot.

Secondly, there was the cricket match, again Staff v Students, at which Paul Beeson, who knew little of the game, was umpire. I lobbed the students for a place against the Staff. Jim Holt, who bowled ‘military medium’, pitched short on leg stump and I pulled it square threatening Beeson’s shin, but he nimbly jumped out of the way. He was one of Pickering’s great acquisitions, proving a straightforward, skilful and wisely firm and kind Nuffield Professor of Medicine. He’d been in the American Red Cross medical team that had come to the UK during the War, and had known Pickering then, when he came to review the Oxford option, he was entertained at Ditchley Park, the sky was a perfect April blue. Beeson had the remarkable attribute that if things were going against him in Committee, his 60-year-old eyes would fill with tears, whether under voluntary control or not I never knew. We all had such respect for him, his wishes would be granted.

Thirdly, Pickering ran a highly justifiable campaign to be given a University Chair, a seemingly decent retired army officer, said to only one of the six candidates ‘Before we begin, can I ask if you’re a serious candidate for this post?’ She was the only female and had children. Of the two really suitable candidates, one was a good administrator while the other a good clinician. The Committee approved the former. There was also pressure for the recommendation to be unanimous. This never made me change my vote. My Committee career in Oxford really ended when on the Medical Board it was claimed that the University was funding more than half the cost of a service. This may have been true of the medically qualified staff, but not I pointed out, the nurses, cleaners, dieticians, etc. My challenge was not out, the nurses, cleaners, dieticians, etc. My challenge was not in the Minutes but I got them altered.

There are many reasons for research, including the wish to improve care, sheer curiosity, and career advancement, but an important one for me was to obtain more medical help in the Diabetic clinic. In 1966, the average time with a medic for each patient was four and a half minutes. In one way it was an entertaining challenge - could one pick out the patient who really needed help? But it was no way to do things. The NHS was not going to provide more staff, but if one could get a research project approved, and it included the funding for a medic, then it was both very useful, and good for the researcher’s career, that he or she do one or two clinical sessions a week. Our research topics ranged widely, often involving the diabetic diet, prompted by two enthusiasts, David Jenkins and Jim Mann. David, who worked in Dan Cunningham’s pre-clinical ones, usually heading to London. We had smaller ones, for example an ‘insulin-glucose-potassium’ regime for patients admitted because of a myocardial infarct. As a British Diabetic Association meeting in Birmingham, I realised that ‘diabetic (hyperglycaemic) coma’ was being treated in tens of different ways, a sure sign that no one knew what they were doing. Oxford was well placed to tackle the problem. We had George Alberti who had set up a rapid ‘low-dose, frequent’ insulin regime, which made management easier for hard pressed house physicians.

With in-patients, first came a study of the ‘insulin-glucose-potassium’ regime for patients admitted because of a myocardial infarct. As a British Diabetic Association meeting in Birmingham, I realised that ‘diabetic (hyperglycaemic) coma’ was being treated in tens of different ways, a sure sign that no one knew what they were doing. Oxford was well placed to tackle the problem. We had George Alberti who had set up a rapid ‘low-dose, frequent’ insulin regime, which made management easier for hard pressed house physicians. After Rowan Hilson’s help in dispelling the myths surrounding ‘chlorpromazine-alcohol flushing’, came Sheikh Rashid of Dubai’s magnificent gift to fund a research unit thanks in part to Sir Geoffrey Archer, Master of Pembroke College, after his retirement from being the last British Resident to the Trucial Oman states. I was perhaps noticed for curing a Pembroke don of his migraine by recommending a digestive biscuit if he woke during the night. This was based on research which arose from Judith working in the Migraine Clinic. On such details can big funding turn.

The Unit both enhanced and complicated my life. I could employ a personal assistant, Diana Renton, who administered both the Unit and me. The main focus of our work was a prospective study of newly diagnosed T2DM patients to see the relation between their clinical course with standard management and a variety of metabolic and clinical factors. Patients were randomised to two different types of dietary advice. We found glucose levels were more strongly linked to tissue damage than those of any other intermediary metabolites and, along with blood pressure and age, were the key indicators of death or damage.

Secondly, there was the cricket match, again Staff v Students, at which Paul Beeson, who knew little of the game, was umpire. I lobbed the students for a place against the Staff. Jim Holt, who bowled ‘military medium’, pitched short on leg stump and I pulled it square threatening Beeson’s shin, but he nimbly jumped out of the way. He was one of Pickering’s great acquisitions, proving a straightforward, skilful and wisely firm and kind Nuffield Professor of Medicine. He’d been in the American Red Cross medical team that had come to the UK during the War, and had known Pickering then, when he came to review the Oxford option, he was entertained at Ditchley Park, the sky was a perfect April blue. Beeson had the remarkable attribute that if things were going against him in Committee, his 60-year-old eyes would fill with tears, whether under voluntary control or not I never knew. We all had such respect for him, his wishes would be granted.

Thirdly, Pickering ran a highly justifiable campaign to be given a University Chair, a seemingly decent retired army officer, said to only one of the six candidates ‘Before we begin, can I ask if you’re a serious candidate for this post?’ She was the only female and had children. Of the two really suitable candidates, one was a good administrator while the other a good clinician. The Committee approved the former. There was also pressure for the recommendation to be unanimous. This never made me change my vote. My Committee career in Oxford really ended when on the Medical Board it was claimed that the University was funding more than half the cost of a service. This may have been true of the medically qualified staff, but not I pointed out, the nurses, cleaners, dieticians, etc. My challenge was not in the Minutes but I got them altered.

There are many reasons for research, including the wish to improve care, sheer curiosity, and career advancement, but an important one for me was to obtain more medical help in the Diabetic clinic. In 1966, the average time with a medic for each patient was four and a half minutes. In one way it was an entertaining challenge - could one pick out the patient who really needed help? But it was no way to do things. The NHS was not going to provide more staff, but if one could get a research project approved, and it included the funding for a medic, then it was both very useful, and good for the researcher’s career, that he or she do one or two clinical sessions a week. Our research topics ranged widely, often involving the diabetic diet, prompted by two enthusiasts, David Jenkins and Jim Mann. David, who worked in Dan Cunningham’s pre-clinical ones, usually heading to London. We had smaller ones, for example an ‘insulin-glucose-potassium’ regime for patients admitted because of a myocardial infarct. As a British Diabetic Association meeting in Birmingham, I realised that ‘diabetic (hyperglycaemic) coma’ was being treated in tens of different ways, a sure sign that no one knew what they were doing. Oxford was well placed to tackle the problem. We had George Alberti who had set up a rapid ‘low-dose, frequent’ insulin regime, which made management easier for hard pressed house physicians. After Rowan Hilson’s help in dispelling the myths surrounding ‘chlorpromazine-alcohol flushing’, came Sheikh Rashid of Dubai’s magnificent gift to fund a research unit thanks in part to Sir Geoffrey Archer, Master of Pembroke College, after his retirement from being the last British Resident to the Trucial Oman states. I was perhaps noticed for curing a Pembroke don of his migraine by recommending a digestive biscuit if he woke during the night. This was based on research which arose from Judith working in the Migraine Clinic. On such details can big funding turn.

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The number of Type 2 diabetics was increasing steadily, as was the number of GPs with some training in their care. The Witney group practice was keen that their diabetic patients be seen there in a joint hospital and GP staffed clinic, and it made sense that one doctor should travel to Witney, rather than 30 patients in the other direction. This idea was adopted in Wantage, Didcot and Bicester, reducing the numbers coming to the JR clinic. Diabetic patients were mainly cared for in their health centres. It is a pity that this transition was not evaluated.

For me, ‘On-take’ medicine was always fascinating, full of human interest and diagnostic surprise, as was my non-diabetic clinic weighted towards thyroid disease, obesity and what used to be called ‘neurotic ill-health’. Help from Senior Registrars became more and more welcome. The precision and scope of tissue imaging were rapidly, as was the increasing specialization for referral to others. So, I retired two years early, allowing me to indulge gentle interests, including walking and gardening, labouring in the less polluted country air.

T.D.R.H, 1/5/21

The first part of Derek Hockaday’s Memories of Oxford Medicine (1946-66) were featured in the Summer 2021 edition of Oxford Medicine (pages 10-11).

www.meds.ox.ac.uk/get-involved/alumni/publications

A Portrait of Derek Hockaday

This watercolour painting is from a photograph of Derek Hockaday interviewing for the RecoCollect Oxford Medicine project. I was hoping to capture his humour and genuine interest in whoever he speaks to.

Dr Lesley Starr
(1976 St Anne’s College), Retired General Practitioner

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Barking Mad

Dr Tim Crossley
(1974 St Edmund Hall), retired London General Practitioner

Dr Kenworthy-Browne, whom I fondly remember from my time as an Oxford region trainee in the 80’s, laments the present unpopularity of primary care. I too am flummoxed. What can we do to get a young doctor, let’s call him Dr Javid, to commit to it?

Most GPs admit they like the work, but not the job, which means the bureaucracy. Michael’s range of patients were in contrast to mine. For instance, driving through Wolverhampton’s red light district on call one evening, I saw a car with a young lady hanging from a rear window. The driver was a middle-aged man and the lady was lying motionless, bleeding profusely. I had to get in the back seat of the car and hold her. I also had to ensure the quality of the practice for the next day. By 1975, our Practice was responsible for six University colleges, two convents, two Private Halls and the Edward Gunning, sometimes working over 100 hours a week. I became the first Course Organiser for Oxfordshire. This involved developing the two-year rotation for trainee doctors in hospital jobs and persuading consultants to take them on, not always easy. In those days, GP trainees were to be considered second-class doctors, fortunately this is no longer the case. I also had to ensure the quality of the practice for the trainee third year. Some practices had to be turned down.

Bent Jelson, the University Medical Officer, asked me to take over a lot of his Oxford work which required me to study tropical medicine. Bent also asked me to be available, as an emergency doctor, for crises on University territory such as laboratories, libraries and museums but I was only called on about four times a year.

Student healthcare kept me young and, looking after families from the cradle to the grave, was immensely rewarding. Getting to know each patient is a very important part of a GP’s life - it can take several consultations to do this.

Kevin, aged 25, came to me during a ‘flu epidemic with a high temperature about a week after a urethral dilatation following damage while climbing a fence. Something made me take blood cultures. The following day, I visited him at home and heard a loud heart murmur of mitral incompetence. The laboratory reported that there was no growth, but I sent him into hospital with a diagnosis of acute bacterial endocarditis. The laboratory telephoned two hours later to say that there was beta haemolytic streptococcus on the culture. He was discharged after six weeks parenteral antibiotics and I checked him regularly. He never needed a valve replacement.

I developed a special interest in hypnosis - with some surprising successes. Unusually, I also had a small but faithful number of private patients, which many doctors disapprove of. I had a consulting room and admitting rights to the Acland hospital and would be invited to assist with operations on my patients. And of course, home visits, babies day and night, and visiting patients in the JR.

I worked for the NHS from 1965 to 2001 but stayed on as a private doctor at the Acland and then the Manor Hospital, only retiring in 2011, age 75.

General practice has changed but I hope this short description illustrates the variety, the buoyancy and the enjoyability of the profession.

Patients with their disordered families from whatever income bracket, or patients from loving families, all have complex issues. If the issue seems simple, they haven’t told you everything. There is no uniquely physical or uniquely psychological condition, though many patients demur from that idea. And when care is driven by algorithms and mechanics, it gets delegated and over-audited, the primary care physician remains, to make sense of it.

We tolerate uncertainty less now, especially the middle classes. The flood of imaging is seen as a good thing (as it reduces uncertainty), rather than entrusting our new clinical skills like listening in the 1980s, when it seemed to take an act of parliament to get a scan let alone a bed, GPs developed sophisticated risk management techniques that Dr Javid will find scary. But he or she needs confidence in using their own skills and judgement and will find that if they are non-judgmental and interested in people, and then patients, they can carry that risk and be highly effective.

So why is it so hard to get Dr Javid to consider primary care, never mind work where there is a paucity of doctors? After all, the balance of work and life is better now in large measure from the feminising of the profession. Pay is pretty good too…. oops….

OK, GPs concerned about pay are generally comparing themselves to their peers in other professions, who may not have the length of training or responsibility they do. Or friends in business or hospital colleagues with healthy private practices. None of whom has the intimate pleasure and reward of long-term family medicine. GPs have to have the confidence not to measure themselves by the money they make. Status drives doctors more than we admit. But perhaps I would say that.

If Dr Javid just wants to get rich, though, there are other options, maybe in the City. In the meanwhile, here is a riddle for non-GP readers; reflecting the decision making in general practice.

What is it that is small, feathered, runs about in a farmyard, lays eggs and barks? Of course, it’s a hen. You have to ignore the barking.

We need Dr Javid to throw himself into the exposed, risky and fascinating life Dr Kenworthy-Browne and I have had such luck to experience.
So, responding to Gandalf, here are some reflections from six years in a rural African hospital, four at a Kampala university (including three as Vice Chancellor), and my years as a GP.

1. There's more to life than money. We sometimes choose a lifestyle then fund it through hard work. To be a good doctor, naturally one needs lots of experience. But do we live simply – so that others might simply live (referencing COP26)?

2. No opportunity is wasted all are stepping stones. I learnt about management and rationing whilst working in resource poor settings. I had little interest in research until I went to university without a research department so helped set it up. I used that experience to set up research in my surgery. This became an incentive for its takeover when I handed back my GP contract (when last man standing).

3. Quitting is not failure. I once worked for a bully. When I told him I felt he was a bully, he changed (people don’t like being called out for bullying). But I still left, for the sake of my mental health.

4. Don’t say, ‘I am not a committee person.’ It’s a reason to join committees and challenge any groupthink. People who think outside of the box are vital, even if they make people feel uncomfortable.

5. Take time to develop your spiritual side. Even atheists have faith.

6. Know yourself and your baggage. Myers-Briggs has been an invaluable tool for self-understanding. I once had a dream where I imprisoned myself by telling people exactly what I thought (often in emails). In the dream, someone came to me and told me that they were shocked, since they thought I was a Christian. I realised that I was carrying unresolved anger from the bullying, which I’m now working on. It’s important to tell the truth but it must be with love and kindness.

7. No-one says on their death bed, ‘I wish I had spent more time in the office.’ If you say that, though busy, you give family and friends quality time you are lying to yourself. Quality time follows quantity time.

8. Keep studying. I wish I’d known what I learnt on my MPH as a medical superintendent.

9. Read widely. I’ve just finished Black Box Thinking, and am reading The Well Gardened Mind and Invisible Women. It’s amazing to use what you’ve read in later consultations.

10. Set a good example. It’s hypocritical to give lifestyle advice we don’t follow ourselves (especially about exercise and alcohol).

So, working in the NHS should be easy, but on reflection it’s much, much harder. Who’s to blame? The government and the NHS? Another Ugandan saying states that when the person who has never travelled only knows their mother’s cooking. Maybe that also applies to those who’ve never worked outside the NHS. Is there groupthink, everyone swimming together like frogs in the slowly warming pot? Or maybe a better analogy would be the crowds praising the stark-naked emperor’s new clothes, not wanting to be the critical voice. After all, whistle blowers’ lives aren’t easy.

Is that a bit extreme? I remember listening to some discussions at CGC meetings, thinking, ‘How did anyone ever think this was a good idea?’

I expected the Ugandan health system not to function. After all, when I arrived in 1997, Uganda ranked among the world’s top three most corrupt countries, according to Transparency International. Working for Angkor Hospital as medical superintendent freed me from the constraints of the government system; and as a white doctor I could challenge the district administrator’s corruption (who wanted the money allocated to some personal project with falsified accounts to accommodate this). I avoided being posted to a secluded district hospital, and instead worked in the government system; and as a white doctor I could challenge the district administrator’s corruption (who wanted the money allocated to some personal project with falsified accounts to accommodate this). I avoided being posted to a secluded district hospital, and instead worked in the main government hospital and the medical school in Queen Elizabeth hospital, Blantyre. I was approved for a research and clinical post.

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What were your reasons for working abroad? Being a committed Christian was the main reason I went into medicine. I had the sense of being called by God to serve overseas.

How did the children’s hospital in Malawi start? Chris and I had our children in the park. Jim, I’ve been thinking, why don’t we build a specialist kids orthopaedic hospital here in Blantyre because the kids never get a look in – they’re always rushed out by the emergencies. Let’s make it a Christian Mission Hospital close to the government hospital so that we can teach and train in it.

How was it funded? Chris had two contacts: one with Cure International which had a hospital in Kenya and was building a second one in Uganda, and the second was the Best Trust, a benefactor for Malawi, Zimbabwe and Zambia. They had a centenary and wanted to do a big project. He applied to them to fund the building and to run the hospital. They came and offered Chris the chair of the board and me, the Medical Director post, on the spot. The building happened very quickly – a great contrast to how it would happen in the UK.

How did it develop? I had input into the building, suggesting some design modifications, and sourcing equipment from various donors around the world. Then there was hiring all the staff. A manager from Cure in Kenya came to work for us. I visited all the District Hospitals in the country to develop systems of referral. Clinics in the District Hospitals were staffed by the orthopaedic clinical officers with me teaching and supervising. After two or three years they didn’t need me any longer. The kids only came to the Cure Hospital for their surgery.

Tell us about the research you did in Malawi? With the high prevalence of childhood bone and joint infections, we were able to publish some important papers on management of these conditions, including an IFC of septic arthritis of the shoulder showing that aspiration was as effective as open drainage. We had a recent UK orthopaedic trainee on rotation. There was a 2.3 per cent incidence of HIV and we developed protocols for management of fractures in those patients.
It followed a research link established in 1999 between Chongqing Medical University and the National Ultrasound Research Centre, which led to Oxford having the first Chinese extracorporeal high intensity focused ultrasound (HIFU) in the Western Hemisphere. James Kennedy, now vicar of St Mary's Church Chipping Norton, was the first HIFU surgical research fellow and through his DPhil research on liver and kidney cancers, was responsible through those clinical trials in obtaining the CE mark on the JC Haifu machine.

High-intensity focused ultrasound is a non-invasive technology allowing ablation of tumours deep within the body. More information on this is available on the Voices from Oxford website: www.voicesfromoxford.org/using-ultrasound-to-treat-cancer.

Critics Corner: OMLC Lecture Series

‘Exciting Progress with Malaria Vaccination’
Monday 26 July 2021
Sir Adrian Hill, Lib长江, Mital and Family Professor of Immunology, Director of the Jenner Institute, Co-Director of the Oxford Martin Programme

Eavesdropping on the Clapham omnibus might suggest that we are all vaccinology experts now, and that generating an effective vaccine is simple and the working taking months rather than years. However, quiet in the background, starting long before and continuing throughout the heralded Covid vaccine breakthroughs, the development of an effective malaria vaccine has been taking place. The prophylactic vaccine that Oxford developed has reached the clinic, and this all-important vaccine has been reaching patients. The pathway to this Oxford-developed vaccine has involved an impressive degree of cooperation between many disciplines, including the delivery of a phase 2b vaccine trial in Burkina Faso, as well as the rivers of patience essential to reach such a long-term goal. Fascinating and informative, the talk provided many questions. For both live and Zoom audiences, which included many NDM or infectious disease stalwarts familiar with the progress of the project over the years. For example, it might be estimated that young children, notwithstanding their acquisition of natural immunity, potentially counteracting the early benefit of the vaccine, and how might this help to answer the long-standing question of the population proportion associated with haemoglobinopathies, itself the subject of Professor Hill’s doctoral research.

‘Immunity to Viral Infections’
Monday 27 September 2021
Professor Paul Klenerman, Sidney Tavlor Professor of Gastroenterology

Professor Klenerman treated us to an erudite overview of the different components of the immune response to viruses, including COVID-19, and how this has been investigated in patients. Of particular interest was the discussion of the balance between immunity and immune pathology, and more coverage of the pathways associated with triggering of coagulopathy would have been very welcome. Occasionally, the sheer number of acronyms and the level of detail contained within some of the slides, fell a little daunting, but that did not detract from what was otherwise an excellent and informative talk. As with other Covid-related subjects, this has very much been a team event, as shown by two slides packed with details of different laboratories and personnel involved in this wonderful example of cross-laboratory collaboration.

‘Virtual Reality for Mental Health Disorders’
Monday 25 October 2021
Professor Daniel Freeman, Oxford Professor of Clinical Psychology

This was a fascinating talk, lavishly illustrated with videos of virtual reality (VR) scenarios, on the power of VR cognitive therapy in the treatment of phobias, with the potential for enhancing treatment options for patients without any real life access to specialist psychology. In the ongoing gameChange trial, this approach is also being evaluated in patients with psychosis. The rationale is that cognitively controlled exposure to even routine VR scenarios can generate ‘counteractive memory’, which can overcome fearful memories associated with trigger situations. In one illustration, we were shown that VR cognitive therapy can allow a sufferer of severe acrophobia to step onto a (virtual) high narrow ledge to rescue a (virtual) cat from a tree. Professor Freeman’s catastrophic (geddit?) joke may have fallen a bit flat (sorry), but this was a very impressive, entertaining, and articulate speaker.

‘How not to make a bad thing worse – rethinking psychological trauma’
Monday 29 November 2021
Professor Sir Simon Wessley, Regius Professor of Psychiatry, Institute of Psychiatry, Kings College London

Another impressive, entertaining and thought-provoking talk given by another distinguished and decorated Oxford alumnus. Many of the take-home messages were simple and intuitive – don’t panic, provide practical support, facilitate contact with family and normal support network. But to reduce the risk of PTSD, don’t jump straight in with on-the-spot counselling in the immediate aftermath of a trauma (which made me wonder; has anyone measured the effect of the Prime Minister appearing at the hospital bedside of victims?) The relaxed, off-the-cuff style by a very impressive, entertaining, and articulate speaker.

Details of previous and forthcoming lectures can be found here: www.medsci.ox.ac.uk/get-involved/alumni/events-and-reunions/oxford-medical-lecture-club
Two things stand out from these interviews. Pre-clinically, the revelation by the undergraduates, echoed by their tutors, that they should think for themselves. So, it’s not what you’ve been taught to believe, it’s not what everyone else is saying, but it’s what you consider the best explanation of the facts placed before you with proper enquiry as to how those ‘facts’ were obtained. And that approach was not totally abandoned clinically; when presented with the maxim ‘When you see a bird flying past the window, it’s more likely to be a sparrow than a heron’, one was allowed to reply, ‘And when you see a heron flying past the window, it’s more likely to be a heron than a sparrow’. Observation and discrimination were ranked high.

A year later, we’re happy to report that the number of interviews available has risen from 18 to around 50. The detailed work of assembling the podcasts has mostly been most ably done by the Bodleian’s Kelly Burchmore, all made possible by a most generous anonymous donation negotiated by Dr Peggy Frith.

A further task is to make available the three interviews available only as transcripts: Mr Malcolm Gough; Prof Ken Fleming; Prof Michael Gelder. And we’re not done yet: this is an on-going project, with three new interviewers recently recruited.

We are very pleased to have held in-person events for this year’s anniversary reunions, as well as rescheduled celebrations from last year, postponed due to the Covid-19 pandemic. Events were held at Balliol College, Trinity College, St Hilda’s College, Magdalen College and Pembroke College. It was wonderful to see so many alumni and we hope you enjoyed reminiscing with old friends. We look forward to seeing more alumni at next year’s reunion events, details of which will be sent by email. If you would like to be a champion for your cohort, please email Bella Pratt, Alumni Relations Manager, at alma@medsci.ox.ac.uk. Below are a few reunion photographs from this year.

1981 Graduates, Balliol College, Saturday 31 July 2021
1990 Graduates, Trinity College, Saturday 30 October 2021
2010 and 2011 Graduates, St Hilda’s College, Saturday 07 August 2021
2000 and 2001 Graduates, Pembroke College, Saturday 02 October 2021

CLICK ON THIS LINK TO LISTEN TO THE PODCASTS: https://podcasts.ox.ac.uk/series/recollecting-oxford-medicine-oral-histories
DR RICHARD GREENHALL (1943 - 2021)

Richard was a Birmingham boy of Welsh heritage who, after leaving King Edward’s School went up to Cambridge in 1962, initially to read natural sciences, although he soon switched to medicine. After clinical training at St Thomas’ Hospital in London, and junior hospital doctor posts in Oxford, Bristol, and London, he started training in neurology under Bryan Matthews in Oxford. Completing his DM thesis in 1975, he flirted with clinical service and to his patients.

In retirement he was able to spend more time with his grandchildren. He enjoyed train journeys, and chopping wood in his beloved Hawthorns, and cricket at Edgbaston, taking unusual rugby at the Millennium Stadium, football at The Hawthorns, and cricket at Edgbaston, taking unusual rugby at the Millennium Stadium, football at The

Mrs Maria Fraser

Professor George Fraser (1957 Green Templeton College) is a pioneer in many fields of human genetics who throughout his long and active career, contributed to the understanding of the diversity of the human genome. He has made major contributions to clinical genetics, to the delineation of syndromes (including Fraser syndrome), to the amelioration of inherited disabilities of hearing and sight, and overall, to the refinement of methods for linkage analysis and fundamental population genetics.

George Fraser, a Winchester Open Scholar, graduated in medicine from Cambridge in 1956. After his PhD thesis with Professor L S Penrose in London in 1960, he held academic appointments in England, the USA, Canada, Australia and the Netherlands before returning to work in Oxford in 1984. It is here that he established the first clinic in familial cancer of breast, ovary and colon under the aegis of Walter Bodmer, Director of ICRF. The clinic since then is flourishing and goes from strength to strength.

In retirement he was able to spend more time with his family, reading the Guardian and Private Eye thoroughly, listening to the wireless (never the radio), watching rugby at the Millennium Stadium, football at The Hawthorns, and cricket at Edgbaston, taking unusual train journeys, and chopping wood in his beloved cottage in Wales. He leaves his wife, Elizabeth, whom he met when they were at school in Birmingham; their children, Owen, George, and Ruth; and five grandchildren.

George has made important contributions to the genetics of blindness (Fraser and Friedman 1967—a book which represents a revised version of the thesis presented to the University of Cambridge for which he awarded the Raymond Horton-Smith price for the best MD thesis of the academic year 1965–6).

George has been linked eponymously to the Fraser syndrome (Fraser 1959). Fraser’s systematic studies crystallised the variable penetrant that is the hallmark of Pendred syndrome and brought the disorder to the attention of a wider public. His data categorically establish the autosomal recessive nature of the syndrome and enabled a prevalence figure of 7.5 per cent of all childhood deafness (Fraser 1965) to be estimated.

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In Memoriam

Professor Frederick Fastier (1948 Bulliol College) died 23 July 2021

Dr Robert Adrian Pieter Kark (1959 St John’s College) died 15 June 2021

Mr Nigel Hawkes (1962 St Catherine’s College) died 06 October 2021

Dr George Macpherson (1960 Oriel College) died 14 November 2021

Dr John Pittard (1969 Magdalen College) died 23 March 2021

Dr Beatrice Rucki (2002 Kellogg College) died 08 September 2021

Please contact the OMA team (om@medics.co.uk) regarding any obituaries of friends or colleagues you would like to be considered for entry into the next edition of Oxford Medicine.
NEWS & CONGRATULATIONS

PROFESSOR SIR PETER HORBY, Professor of Emerging Infectious Diseases and Global Health, has been awarded the prestigious AWMF Smith Prize for 2020–2021 by the Faculty of Public Health in recognition of his outstanding service to public health as a global leader in epidemiology.

PROFESSOR JOHN BELL, Regius Professor of Medicine, has been selected for induction into the Canadian Medical Hall of Fame, for his pioneering advances in the era of translation research, targeting and applied laboratory discoveries into the world of practical medicine.

PROFESSOR TRISH GREENHALGH, Professor of Primary Care Health Sciences, was Highly Commended in the OR&I Excellence in Impact Awards 2021 for her significant contribution to policy discussions and public understanding of Covid-19 precautions internationally.

PROFESSOR JOHN ANDREW TODD, Professor of Precision Medicine and Director of the Wellcome Centre for Human Genetics and of the JDRF/Wellcome Diabetes and Inflammation Laboratory (WIDIL), has been awarded the 2021 EASD-Novonordisk Foundation Prize for Excellence for his decades of effort to understand, prevent and combat type 1 diabetes.

PROFESSOR SIR PETER DONNELLY (DPhil Mathematics, 1980 Balliol College) has been presented with the Gabor Medal by the Royal Society for his pioneering work in the genomic revolution in human disease research, transforming the understanding of neoplastic recombination, and for developing new statistical methods.

PROFESSOR GEORGE WARIWWE has been awarded The Royal Society Africa Prize for his work on poxvirus vaccine development, capacity building in Africa, and his innovative research proposal. He is currently working on viral infections that are transmitted between humans and animals in Africa with a focus on vaccine development for their control.

DR TANAY BHARAT (2006 Hertford College), a group leader at the Sir William Dunn School of Pathology, has been awarded a prestigious Wellcome Research Prize in the 2021 funding round.

DR ALEXANDER (SANDY) DOUGLAS (2004 New College), an investigator at the Jenner Institute, Oxford Department of Medicine, has recently received two prestigious Wellcome accendes. Dr Douglas was awarded a five-year Wellcome Stage 2 Clinical Research Career Development Fellowship, receiving £3m of funding to investigate development of new vaccines against rabies and Epstein Barr virus. On the back of his strong fellowship application, he also was one of four recipients of a Wellcome best prize worth another £25k of funding. This prize is awarded annually to Wellcome’s strongest applicants across their range of intermediate-level clinical & non-clinical fellowship schemes.

PROFESSOR ALISON SIMMONS, the Director of the Oxford University MRC Human Immunology Unit (MRC HLU), together with DR HASHEM KOONY, group leader at Radcliffe Department of Medicine and the MRC HLU have been awarded a Chan Zuckerberg Initiative Paediatric Networks for the Human Cell Atlas grant.

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Medical School News: Resilience, Kindness, Professionalism...Oh My!

Dr Catherine Swales (1997 Wadham College), Director of Clinical Studies, Oxford

“When will it end?”... If I’d got a pound for every time I’ve heard that phrase about Covid I could build a new education centre, buy a yacht and sail off to retirement in the Maldives. Well, not quite – but not far off. And if it’s not Covid directly, it’s the knock-on effect of an NHS (and therefore its staff) that is creaking at the seams. Everyone is digging deep - braced for the winter and thereafter still a long haul.

Under these circumstances, those elusive qualities that mean so much in students, trainees and seniors fall under pressure: kindness, resilience and professionalism. When there’s little resource left, those traits run the risk of being the first to go. Conversations become less rich and more transactional, energy levels become depleted, leading to vulnerability and isolation - and tempers fray. That said, I’m constantly amazed by my friends and colleagues (and those who were colleagues but are now friends) and their sense of grit, of doing the job right no matter what, and still pausing to smile, to comfort and to sustain those around them. That seam of strength should certainly not be taken for granted by Government however, but I think that’s a topic for another day...

So where does it all come from? Can you spot resilience at interview? Is it possible to teach kindness? How on earth do you assess professionalism? It is to be fervently hoped that most schools form the habit to demonstrate significant resilience so early on in their lives (although alas some do, and show extraordinary strength), and as a result there’s little ‘plot’ of them to be able to call on, or for interviewers to test. That said, the Oxford interview in itself might be arguably a test of resilience – but so much changes over the time between interview and arriving, and arriving and graduating.

A lot of water flows under the bridge in those few years, and some of it is troubled. Our welfare teams in both preclinical and clinical are acutely aware of this and are focusing attention on helping students to learn these skills, so that they have the internal resources to lean on when the going gets tough. For many – indeed for most – that’s all they need. Our students by and large not only pace themselves, but excel in so many ways, though it would be arrogant and foolish not to recognise that for a few the pinchpoints are very profound indeed. For those there is a fine line between helping them to manage and seeing when they can’t – and helping them to see that too. There is nothing to be gained from just keeping going, to reach a finish line that is only actually a start line for a new set of challenges, with different (and sometimes fewer) mechanisms of support: A break; a pause for breath, to retreat, regroup and return can make all the difference in the world.

And what of kindness? For all their work on Outcomes for Graduates, in which the GMC have put professionalism front and centre, there is no mention of kindness. Not one. And yet I suspect it’s often what patients seek most. Inherent in kindness is the understanding that we are not alone, and that others have battles often greater than ours; it can also be one of the most powerful agents for change - but it’s not a curricular requirement. Aesop said, ‘No act of kindness, no matter how small, is ever wasted’, and whilst I accept, I am more than a little biased (ahem), I believe our students understand that, and that is – to each other, themselves, and the people around them.

“Can you spot resilience at interview? Is it possible to teach kindness? How on earth do you assess professionalism?”

As for professionalism? Well, that remains an important area for all Schools to develop in teaching and assessment, and one with which we are all grappling. Examining it in a meaningful way is more longitudinal (and therefore complex) than ‘simply’ incorporating into an OSCE or reflective pieces – and the latter are only as valuable as the thought that goes into them. How does one examine an identity? I accept that the Situational Judgment Test tries to achieve that as part of the Foundation application process, but a recent SJT revision session with the final years provoked such a vibrant discussion about even the most ‘obvious’ case, I wonder if ranking, rating and selecting responses can really test it in any meaningful way. Research into this area abounds of course – but the value of that also depends on which metric matters, and which gets picked … and has anyone asked the patients what they prioritise most?

That’s all from me for now, except to say good luck and good thoughts to our Finalists as they make their way through an undoubted pressure point in the year: 2 BM exams, job applications and SJT – all squashed into a few short months. A test of resilience indeed. I wish them well and am so proud of them.
Climate Crisis = Health Crisis: Medics Sound the Alarm

Chloe Freeman (2020 Somerville College), Hannah Chase (2018 Green Templeton College), and Roshan Karthiappallil (2018 University College / Green Templeton College)

Building on the Summer edition introducing Education for Sustainable Healthcare (ESH), medical students Hannah Chase, Chloe Freeman and Roshan Karthiappallil share updates, experiences, and climate facts.

COP26: A pivotal moment of climate negotiations disappointingly culminated in an anaegetic agreement - global leaders lacked the courage to steer the world from climate catastrophe. If you only watch one speech, the powerful words of Barbados PM Mia Mottley reminded us that “We exist now – we want to exist 100 years from now.”

Medical Sciences Division (MSD) Declares a Climate Emergency
In October, after six months of campaigning led by Roshan, MSD signed a joint declaration stating the climate and ecological emergency is a health emergency, alongside many medical schools. Despite this huge leap forward, it is disappointing that making the statement publicly available – the definition of a declaration – is not a priority from the MSD. It must be, alongside aligned commitments.

ESH Progress Within the Medical School
Planetary Health has been further incorporated into many curricular threads, including a new Special Study Theme in Planetary Health and Sustainable Healthcare offered in fourth year. This allows students to dive deeply into the reality of climate and health. As medical professionals, we have a unique responsibility to prevent a devastating public health crisis, requiring the medical school to prepare us accordingly.

Secondly, an ESH faculty lead post has been created. This position is a clear statement of commitment from the medical school, and we are delighted that Dr SarahMuyTam has accepted the position to build on previous work and will be starting in December.

Healthcare Workers Take to the Streets
Alongside COP26, Saturday 06 November 2021 was a Global Day of Action for Climate Justice with marches around the world in support of system change for a just transition. In Oxford, medical students, diverse members of the Oxford healthcare community, and MSD faculty formed a vibrant health bloc. The positive public response to the Oxford NHS staff and students’ presence at the march was uplifting and proved the quote that ‘Hope is more the consequence of action than its cause’. Surrounded by colleagues, with a shared sense of urgency, a rainbow appeared over Broad Street – a fitting symbol of hope.

Health Professionals at COP - a Medical Student’s Lens by Chloe Freeman
I felt it important to be in Glasgow during COP26. As a student, I feel it’s imperative to inform myself of the impacts of climate change on people and planet and how it shapes the practice of medicine. Although labelled the most exclusive COP yet, the Health Pavilion signified the necessity of including health within negotiations. However, the truth is I still feel sceptical about the red systemic change we need to see.

Despite this, alongside the conference, COP26 Coalition People’s Summit was an incredible four days of listening and learning. Stones were shared by those living with a daily reality of climate change, and flickers of hope allowed me to envisage a future where climate and social justice are realised in Glasgow, a rainbow also appeared during the march, a reminder of our shared struggle. We have the solutions, we have creativity, new world leaders need to listen.”

Reality Check
► Air pollution kills 8.7 million people per year. In Oxford, alone, higher pollution days are linked to six cardiac arrests outside hospital and eight strokes per year. Healthier modes of travel simultaneously protect our climate, bodies and minds.
► A third of all greenhouse gas emissions come from food production. Red meat has the biggest contribution. The average UK citizen eats 88kg meat/year. A diet to save our planet must include a maximum of 25kg/yr including only 5kg of red meat and 10kg of processed meat. Furthermore, we drastically reduce all-cause mortality. Hospitals tackling to use its game – ideally adopting the Planetary Health diet 1 Both financially beneficial and improving patient health outcomes.
► The NHS, responsible for five per cent of UK emissions, are committed to Net-Zero by 2040. Are the workforce prepared? No. Does GUH have a Green Plan after failing to produce a Sustainability Development Management Plan by March 2020? No. We are beyond needing to make incremental changes or ‘blah blah blah’. Emissions must be cut in the next decade for it to make a difference to the youth of today.

How about individual healthcare professionals responsibility in all this? Translate eco-anxiety into practical action. Challenge systemic structures, lobby your trusts and personal choices. If you would like to inform yourselves and your patients more, this RSM webinar series is an excellent introduction:

When I first arrived, I was most afraid of not to miss out on any experiences so I joined the University Equestrian Club, the College Rowing Club, and both the College and Millennium orchestras. Alongside these was the shock of having a syllabus now complete and pre-clinical students will resume in-person classes before the end of the term.

Alice’s Adventures in Pre-Clinical Medicine

Alice McGonnell (2019 New College)

The phrase “full-on” best summarises my experience of preclinical medicine. When I first arrived, I was already2 worried I would miss out on experiences so I joined the University Equestrian Club, the College Rowing Club, and both the College and Millennium orchestras. Alongside these was the shock of having a syllabus now complete and pre-clinical students will resume in-person classes before the end of the term.

Sadly, easy tutorials and prosecution sessions ended when Covid-19 hit, and online learning arrived. The only bonus was our exams were postponed! However, when second year arrived, we were sent back to college. College felt more like a prison: no sport, no Evensong, no formal dinners and no parties. With nowhere to go and nothing else to do, Michaelmas 2020 was largely spent staring at a screen battling a crippling workload.

After another term at home and a major set of exams, Trinity 2021 felt like a blessing. Competitive sport was back along with Eversong and formal dinners. We made up for lost experiences with a late Halfway Hall and various inter-college sports competitions. Third-year work began, and we were able to choose topics of specific interest. Essay-writing was no longer a chore, and I particularly loved discussing the physiology of spacetrawel in a tutorial. I was lucky enough to represent the University in a student horse race at the Curragh Racecourse in Ireland, and I have taken up modern pentathlon, making some fantastic friends. In contrast to library sessions and essay crises, I have been carrying out a research project at OVMU, gaining an insight into how scientific research is performed. Next term, I head back to the library to prepare for final exams before clinical school commences. As preclinical medicine draws to a close, I cannot wait to spend more time in the hospital and start feeling more like a proper doctor!
Tingewick is Back

Meirian Evans (2017, St Catherine’s College) and Charlotte Rose (2017, Magdalen College)

What a year! Joining both clinical school and the Tingewick Society mid-lockdown made the start of the year a busy time for the 30 medical students who make up Tingewick Firm. Our challenge was huge in 2021, when the fifth years hadn’t been able to experience a pantomime as fourth years before taking over the society.

This year, we’re raising money for Oxford Hospitals Charity and Calon Hearts, both of which mean a lot to us. We started with some online fundraisers, including quizzes, a virtual bake sale and the hugely successful Oxford Unlocked raffle. We’ve since been able to reintroduce more traditional Tingewick events such as the Ceilidh and the Consultant Gameshow. These were augmented by two huge physical endeavours: the Three Peaks Challenge and a 48-hour non-stop Headington Hill runathon. A highlight for many was our September production of ‘Nightsweats at the Museum’. With Tingewick Hall off-limits, both events garnered a huge turnout.

We’ve already raised over £20,000, and that’s before launching our biggest fundraiser of the year: the Tingewick Pantomime. Sadly, the pantomime couldn’t happen last year – but elephants never forget, so we’ll be back and (hopefully) better than ever! This year, we’re honouring Tingewick’s legacy by transporting you from the present day back to a pre-pandemic time with ‘Willy Wonka & the Chocolate Factory’. Rita on the river

Osler House Boat Club News

Jennifer Holmes (2017, St Hugh’s College), OHBC President

OHBC has had a busier term than ever, all culminating in our biggest challenge – an epic journey to row everyone’s favourite pink elephant all the way to London!

September saw an influx of keen fourth years bringing fresh blood into the club and committee. More importantly, we now have a men’s side desperate to show that it is not just the women of OHBC who can win blades.

Halloween brought WLI A, with our W2 8+ the fourth fastest women’s boat of the day and the W1 4+ coming second in their category and beating half of the eights. Setting the tone for another speedy year from OHBC! October also saw another alumni outing – only in OHBC can you take out a boat of alumni on Sunday to end up in the JR ED with them the very next day! Do get in touch if you want to come down for a row; we enjoy getting back on the water with you.

Meanwhile, November saw OHBC partnering with your favourite pink elephant, rowing an eight 17/0km and through 33 locks from Oxford to London over three days. Around 20 members of OHBC took part in this challenge helping to raise £7,900 to date, meaning a £3,950 donation to Tingewick to help support the Oxford Hospitals Charity and Calon Hearts.

If this term has sounded busy just wait for 2022 which will hold more racing, more alumni events, and hopefully, even more bumps than last year! I am also happy to announce that you can now get your hands on an infamous OHBC Bucket hat – as seen in last year’s bumps commentary.

We are all thankful for your continued support of the Club – we could not do this without you. To hear more and to receive invites to future events, remember to sign up to our mailing list by dropping us an email (ohbc.oxford@gmail.com).

Best wishes from all of us at OHBC!

Gofundme: gf.me/u/zcf4kp
@ohbc.oxford
OHBC.crew after fundraising row from Oxford to London

Rita on the river
Covid-19 Art Competition Winner

Matthew Gowell
(2015 New College)

In my final week of medical school, I spent time documenting the experiences of staff who worked on the frontline during the first wave of the pandemic. During a visit to intensive care at the John Radcliffe, I photographed a poignant moment of embrace between Liza and Linda, a nurse and healthcare assistant. This was one of the few ways it was possible to physically comfort a colleague, whilst social distancing was enforced – dressed in full PPE. They told me that this practice became commonplace amongst the nursing staff and helped strengthen their resolve when they felt most affected by the harrowing events unfolding around them.

I instantly knew that I had to paint this image. It perfectly encapsulates the need for human interaction and its resilience during the most adverse of circumstances. I hope that this painting will serve as a lasting reminder of the strength of our NHS key workers and the sacrifices they made, during one of the most significant events of the twenty-first century unfolding.

‘Embrace’ - Oil on canvas, 1m x 1.2m

The Radcliffe Orchestra Returns

Professor John Stradling Emeritus Professor of Respiratory Medicine, University of Oxford

The Radcliffe Orchestra gave its first live concert, since government Covid-19 restrictions were lifted, on Saturday 06 November in aid of The Oxford Christmas Day Lunch. It was a joyous occasion to be making music together again in front of a live reactive audience. Paediatric registrar Shuang Wang and consultant anaesthetist Pete Hambly played Shostakovich’s 2nd piano concerto and Mozart’s 23rd piano concerto respectively, followed by Beethoven’s 1st symphony, all under the baton of one of our regular conductors, Andrew Gray. Ticket numbers were limited to 120, so our usual number of concert goers will have to wait until our 12 March concert.

The Radcliffe Orchestra started in 1978 when a group of hospital musicians, led by respiratory consultant Dr Donald Lane, gave a concert in memory of a young nurse, Jill Broads, who had died of melanoma. A memorial fund for cancer research was launched in her name, helped by an annual concert for 20 years. The number of musicians grew to a full-size symphony orchestra. The players are made up of various health professionals, often with support from friends and family. The orchestra normally puts on three fundraising concerts a year, each raising about £1,000 for medically related charities. In 2016, it gave its 100th concert. The Oxford Radcliffe Hospitals Charitable Funds support the orchestra and regard it as an important social amenity within the Oxford Health Services.

How important is music in your life? (ed)

I had all but given up playing the trumpet as a busy junior doctor but my then boss, Donald Lane, asked me to play in one of his concerts having remembered my rather out-of-date entry on the CV! This resurrected my playing, and since then music has been a great source of sanity, counteracting the trials and tribulations of working in the NHS. Playing in an orchestra is an all-round wonderful experience on many different levels: the music itself; the camaraderie within the orchestra; and the satisfaction of playing as well as possible (and not letting down the rest of the orchestra).

What happened to the Orchestra during Lockdown?

During lockdown, in the summer of 2020, Catherine Underwood (who had been due to conduct the June 2020 concert) and her family organised an immensely successful online production of the orchestra playing Nimrod from Elgar’s Enigma Variations. This involved all of us individually recording our parts at home, and then the Underwood family, through extraordinary technical wizardry, combined all the recordings into a very professional production. This raised over £4,000 for the Oxford Hospitals’ Charity.

The recording can be found here: www.hospitalcharity.co.uk/news/radcliffeorchestra

Lockdown restrictions have done much harm, but you need the wisdom of Solomon to weigh up the chalk and cheese issues involved. One can argue very different viewpoints, given the limited evidence available, on many of the issues over transmissibility in different social activities such as singing and playing musical instruments. We will probably never know, even in retrospect, whether the UK got it right or not.

Looking forward…

George Card will once again be conducting us for our next concert on 12 March, in aid of The Porch Day Centre. See www.radcliffeorchestra.org.uk for details.

Dr Rosie Adams, a breast radiologist at the Churchill, is the orchestra’s chairman. She can be contacted at rosie.adams@ouh.nhs.uk and would be delighted to hear from medically related charities who might like the Radcliffe Orchestra to do a concert for them, as well as any musicians interested in joining the orchestra.
Grow Your Own Woodland

Dr Fiona Hampton  
(1974 St Hugh’s College), Retired Consultant Pediatrician

The plan for my consultant job was always to live in the countryside and commute to a paediatric unit big enough for me to teach. It did not originally include growing our own small forest.

I did not know much about Middlesbrough or The North York Moors 25 years ago, but we have lived within the park boundaries, only eight miles from the hospital.

Our former farmworker’s cottage is in the middle of what had been a large country house estate of agricultural land, largely hillside grazing, some of which had been planted with trees in the previous five years. We felt encouraged to do the same with our two hectares of land. A Forestry Commission grant covered half the cost of planting 2,500 mixed native broadleaves 15 months after we moved in. Seeing our green credentials, the owner of the surrounding land sold us an unplanted plot adjacent to ours and a year later, with the help of another grant, my GP husband Chris took leave to supervise planting 4,000 more trees assisted by a local youth opportunity scheme. The following year, we bought all his remaining land, mostly already planted, and finally, five years ago, we planted our last tree-free area.

A drive to make wildlife corridors and encourage willow growth assisted by a college to bring their students to cut down trees. We hope this will restart next year.

Working outside with the trees in all weathers has been a wonderful antidote to the stresses of NHS work. Being physically exhausted but emotionally relaxed is just what these doctors needed. I remember planting trees one snowy boxing day listening to Stephen Fry reading the whole of the first Harry Potter on Radio 4. Perfect.

Finally, after 20 years, the plantation needs thinning so stronger trees can thrive and to produce areas for different animal and plant species, along with new planting so trees are not of a uniform age. We have an approved plan for this and before Covid-19 we got together with a college to bring their students to cut down trees. We hope this will restart next year.

Working outside the trees in all weathers has been a wonderful antidote to the stresses of NHS work. Being physically exhausted but emotionally relaxed is just what these doctors needed. I remember planting trees one snowy boxing day listening to Stephen Fry reading the whole of the first Harry Potter on Radio 4. Perfect.

Chris retired at 54 to spend more time on the land and bought himself a JCB. The first job with it was to install a 6kW wind turbine. I waited until 58 and bought an alpine tractor; good on hills. Working outside now ensures we keep fit. We have a small sawmill and lots of woodworking equipment so we can make furniture with wood from fallen trees and a biomass log boiler to heat the house with waste wood.

We are now proud owners of 36 hectares of hillside bearing about 30,000 young trees, as well as some areas of woodland over 100 years old. Of course, land is more affordable “up north” but you don’t have to aspire to growing such a big wood as we have; every little helps but get a move on. They say the best time to plant a wood is 20 years ago, because after that you will have a canopy, and that’s both cool and green.

Trees need more work than you might expect as you see them on the hillside in their plastic tubes. Initially, they need surrounding vegetation to be cleared to allow light and energy, in our case mostly bracken which is very difficult to control.

There is a high death rate, with voles eating the roots, and the grants require deaths to be replaced. Later trees get blown over or pulled down by bracken or trespassing sheep and need replacing.

short tubes are used, as the previous owner did, grazing roe deer remove the lead stem and one has to be identified before putting a taller tube on. The older tubes did not biodegrade so they should and strangled the trees, needing manually splitting.

Across
1. Warming them, ice can lag in maelstrom (7,6)
2. Note rash ruined furniture (8)
3. Teach editor and accountant in vehicle (7)
4. Lance Southern fish (5)
5. Backward girl finds her way? (3)
6. In lovely cathedral (3)
7. Sounds like cattle in the Bible (2)
8. Arrange year after English sailor goes terrestrial (9)
9. Pigment found in Loch Restil (5)
10. No back and forth (2)
11. Future source of protein? Turning sin, etc (6)
12. Thank you for Greek letter (3)
13. Lost quiet little dog at the top (2)
14. Underground pipe (4)
15. Top club? (3)
16. Sounds like the best spreadsheet (5)

Down
1. What3words location. Where is this controversial location? (3)
2. Note rash ruined furniture (8)
3. Teach editor and accountant in vehicle (7)
4. Lance Southern fish (5)
5. Backward girl finds her way? (3)
6. In lovely cathedral (3)
7. Sounds like cattle in the Bible (2)
8. Arrange year after English sailor goes terrestrial (9)
9. Pigment found in Loch Restil (5)
10. No back and forth (2)
11. Future source of protein? Turning sin, etc (6)
12. Thank you for Greek letter (3)
13. Lost quiet little dog at the top (2)
14. Underground pipe (4)
15. Top club? (3)
16. Sounds like the best spreadsheet (5)

Clues 16, 14 and 11 (in that order) give a what3words location. Where is this controversial location? Solution on page 44
Short-eared owl © Dr John Reynolds (1975 St Catherine’s College), Associate Head of Medical Sciences Division (Clinical Affairs) and Consultant Physician and Clinical Pharmacologist, John Radcliffe Hospital, Oxford.

“I gravitate to the Otmoor RSPB reserve for a quiet hour. It is a remarkable place with an abundance of wildlife where I can indulge my hobby of wildlife photography.”

The location: tube.opera.insect on what3words is in Linacre College.

ANSWERS TO CROSSWORD

Across
2 Spike
4 Temperature
7 Lo
8 Planetary
9 Ochre
10 On
11 Insect
14 Opera
16 Tube
17 Excel
19 Map

Down
1 Climate change
2 Sheraton
3 Educate
4 Excel
5 Tube
6 Ely
10 Over
11 Insect
12 Tau
13 Up
15 Ace
18 Cop